(April 2004)		UNITED STATES				ON Exp	ORM APPROVI MB No. 1004-01 bires March 31,	37
		RTMENT OF THE I		1U om	9 110	5. Lease Serial NMNM-9		
		FOR PERMIT TO	DRILL OR I	- • • • • •	3 48	6. If Indian, Al N/A	llotee or Tribe	Name
la. Type of w	ork: 🗹 DRILL	REENTI		ARMINGTO	NRM	7 If Unit or CA N/A	Agreement, N	lame and No.
lb. Type of W		Gas Well Other	√ Singl	e Zone Multi	ple Zone	8. Lease Name DUGAN		
2. Name of O	perator				9. API Well No. 30-039- 29961			
	P. O. BOX 10340 MIDLAND, TX 79702-73	340	3b. Phone No. (i (432) 685			10. Field and Poo BASIN F	ol, or Explorate RUITLAND	5. C
4. Location o At surface	Well (Report location clean 980' FNL 8	rly and in accordance with an k 1965' FWL	ty State requirement			11. Sec., T. R. M.		urvey or Area
At propose	d prod. zone SAME			Fot 3)		
	miles and direction from nea					12. County or Pa RIO ARR		13. State NM
15. Distance fro	lease line. ft.		16. No. of acre	s in lease		g Unit dedicated to		
(Also to ne	arest drig. unit line, if any)	980'	326.24			5 1-4 & S2N2 BIA Bond No. on f		4 N/2
to nearest w	m proposed location* ell, drilling, completed, on this lease, ft.	2,515' (DUGAN 1)	19. Proposed I 4,100'	epin	1	NM2125	inc	
21. Elevations 6,808' C	(Show whether DF, KDB,] L	RT, GL, etc.)	22. Approxima	te date work will st 08/01/2006	art*	23. Estimated d 3 WEEK		
	i —		24. Attach	ments			,	
1. Well plat cer	ompleted in accordance with tified by a registered survey	•		4. Bond to cover	the operatio		by an existing	g bond on file (see
 Well plat cer A Drilling P A Surface U SUPO shall 	tified by a registered survey	or. on National Forest System	1 Lands, the	 Bond to cover Item 20 above) Operator certif Such other site authorized off 	the operatio ication e specific inf	ns unless covered	lans as may be	
 Well plat cer A Drilling P A Surface U SUPO shall 	tified by a registered survey an. Ise Plan (if the location is the second	or. on National Forest System e Forest Service Office).	Lands, the Name (1	 Bond to cover litem 20 above) Operator certif Such other site 	the operatio ication e specific inf	ns unless covered	lans as may be	
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title	tified by a registered survey an. se Plan (if the location is be filed with the appropriate	or. on National Forest System e Forest Service Office).	h Lands, the	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Printed/Typed) 	the operatio	ns unless covered	lans as may be Date Out	e required by the
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title	tified by a registered survey an. se Plan (if the location is be filed with the appropriate CONSULTANT	or. on National Forest System e Forest Service Office).	I Lands, the Name (1 B PHONE:	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Printed/Typed) RIAN WOOD 	the operatio	ns unless covered	lans as may be Date Out	required by the
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title	tified by a registered survey an. se Plan (if the location is be filed with the appropriate CONSULTANT	or. on National Forest System e Forest Service Office).	I Lands, the Name (1 B PHONE:	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Printed/Typed) RIAN WOOD (505) 466-8120 	the operatio	ns unless covered	lans as may be Date 04 82	e required by the
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title Approved by (S Title Application application app	tified by a registered survey an. se Plan (if the location is be filed with the appropriate CONSULTANT gnature	or. on National Forest System e Forest Service Office).	Lands, the Name (<i>I</i> B PHONE: Name (<i>I</i> Office	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Printed/Typed) RIAN WOOD (505) 466-8120 Printed/Typed) 	the operatio ication e specific infi icer. FA	ns unless covered ormation and/or pl X: (505) 466-968	lans as may be Date 00 82 Date 9	e required by the 5/09/2006
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title Approved by (S Title Application app conduct operati Conditions of a Title 18 U.S.C. 	tified by a registered survey an. se Plan (if the location is be filed with the appropriate CONSULTANT ignature)	or. on National Forest System e Forest Service Office).	A Lands, the Name (1 B PHONE: Name (1 Office ds legal or equita	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Such other sit authorized off Printed/Typed) RIAN WOOD (505) 466-8120 Printed/Typed) Definited/Typed) Definited/Typed, Son knowingly and 	the operatio ication e specific infi icer. FA.	ns unless covered formation and/or pl X: (505) 466-968 bject lease which w	lans as may be Date 04 82 Date 77 vould entitle th	e required by the 5/09/2006
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title Approved by (S Title Application app conduct operati Conditions of a Title 18 U.S.C. 	tified by a registered survey an. se Plan (if the location is to be filed with the appropriate CONSULTANT ignature) broval does not warrant or co ons thereon. pproval, if any, are attached Section 1001 and Title 43 U.S. fictitious or fraudulent stat	or. on National Forest System e Forest Service Office).	A Lands, the Name (<i>I</i> PHONE: Name (<i>I</i> Office ds legal or equita	 Bond to cover Item 20 above) Operator certif Such other sit authorized off Such other sit authorized off Printed/Typed) RIAN WOOD (505) 466-8120 Printed/Typed) Definited/Typed) Definited/Typed, Son knowingly and 	the operatio ication e specific infi icer. FA.	ns unless covered ormation and/or pl X: (505) 466-968 bjectlease which w	lans as may be Date 04 82 Date 77 Would entitle the ment or agence	e required by the 5/09/2006
 Well plat cer A Drilling P A Surface U SUPO shall 25. Signature Title Approved by (S) Title Application app conduct operating Conditions of a Title 18 U.S.C. States any false, *(Instructions) 	tified by a registered survey an. se Plan (if the location is to be filed with the appropriate CONSULTANT ignature) broval does not warrant or co ons thereon. pproval, if any, are attached Section 1001 and Title 43 U.S. fictitious or fraudulent stat	or. on National Forest System e Forest Service Office).	A Lands, the Name (<i>I</i> PHONE: Name (<i>I</i> Office ds legal or equita	 4. Bond to cover Item 20 above) 5. Operator certif 6. Such other sit authorized off Printed/Typed) RIAN WOOD (505) 466-8120 Printed/Typed) Definite to those right Son knowingly and hin its jurisdiction. 	the operatio ication e specific infi icer. FA.	ns unless covered ormation and/or pl X: (505) 466-968 bject lease which w nake to/any/depart	lans as may be Date 04 82 Date 77 Would entitle the ment or agence	e required by the 5/09/2006

•

.

-

1

à.

State of New Mexico Energy, Minerals & Mining Resources Department

OL CONSERVATION DIVISION 2040 South Pacheco Santa Fe. NM 87505



\$ 89 42 E .

2630 .

z

0

Š

₹

:

5320

1

BLM/GL0

** calculated *** assumed

> 2630 . S 89 42 E •

Form C - 102

or under my supervision, and that the some in true and correct to the best

AT ALLICA

6844

erro 1980

ۍ ان

02

05/07/04

Signature and Gealth DO

of my belief.

Date of Survey

d'

ч હ

:

ш

8

Ö

7

Submit 3 Copies To Appropriate District		
	State of New Mexico	Form C-103
Office	Energy, Minerals and Natural Resources	May 27, 2004
1625 N. French Dr., Hobbs, NM 88240	0,	WELL API NO.
District II	OIL CONSERVATION DIVISION	30-039-
1301 W. Grand Ave., Artesia, NM 88210 District III	1220 South St. Francis Dr.	5. Indicate Type of Lease.
1000 Rio Brazos Rd., Aztec, NM 87410		STATE FEE
District IV	Santa Fe, NM 87505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505		NMNM-023047
	FICES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name
(DO NOT USE THIS FORM FOR PROPO	SALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A	
DIFFERENT RESERVOIR. USE "APPL PROPOSALS.)	ICATION FOR PERMIT" (FORM C-101) FOR SUCH	DUGAN
1. Type of Well: Oil Well	Gas Well 🗗 Other	8. Well Number 1 T
2. Name of Operator		9. OGRID Number 233194
POGO PRODUCING (SAN JUA)	N) COMPANY	
3. Address of Operator		10. Pool name or Wildcat
P. O. BOX 10340, MIDLAND, T	X 79702-7340	BASIN FRUITLAND COAL GAS
4. Well Location		
Unit Letter: C	980' FNL & 1965' FWL	I
Section 3	Township 29 North Range 5 We	st NMPM RIO ARRIBA County
	11. Elevation (Show whether DR, RKB, RT, GR,	
	6.808' GL	
Pit/or Below-grade Tank Application 🗹		
Pit type: DRILLING Depth to Groundy	vater: <u>100'</u> Distance from nearest fresh water well: <u>>5,000'</u> D	istance from nearest surface water: >5 <u>00'</u>
Pit Liner Thickness: 12 mil		Construction Material
12. Check	Appropriate Box to Indicate Nature of Not	ice, Report or Other Data
		SUBSEQUENT REPORT OF:
PULL OR ALTER CASING	MULTIPLE COMPL	
OTHER: DRILLING PIT	nleted operations (Clearly state all pertinent details	and give pertinent dates including estimated date
13. Describe proposed or com	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w		
13. Describe proposed or com	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w	pleted operations. (Clearly state all pertinent details	
13. Describe proposed or com of starting any proposed w or recompletion.	pleted operations. (Clearly state all pertinent details vork). SEE RULE 1103. For Multiple Completions:	Attach wellbore diagram of proposed completion
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information 	pleted operations. (Clearly state all pertinent details vork). SEE RULE 1103. For Multiple Completions:	Attach wellbore diagram of proposed completion
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information 	pleted operations. (Clearly state all pertinent details vork). SEE RULE 1103. For Multiple Completions:	Attach wellbore diagram of proposed completion
 13. Describe proposed or com of starting any proposed w or recompletion. 14. In the information of starting any proposed w or recompletion. 	pleted operations. (Clearly state all pertinent details vork). SEE RULE 1103. For Multiple Completions:	Attach wellbore diagram of proposed completion
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information grade tank has been/will be constructed sIGNATURE 	n above is true and complete to the best of my know r closed according to NMOCD guidelines [], a general pern TITLE: CONSULTANT	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- nit dor an (attached) alternative OCD-approved plan do DATE: JUNE 9, 2006
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information grade tank has been/will be constructed SIGNATURE	n above is true and complete to the best of my know r closed according to NMOCD guidelines [], a general pern TITLE: CONSULTANT	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- nit] or an (attached) alternative OCD-approved plan].
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information grade tank has been/will be constructed sIGNATURE 	pleted operations. (Clearly state all pertinent details york). SEE RULE 1103. For Multiple Completions: n above is true and complete to the best of my know pr closed according to NMOCD guidelines [1], a general pern TITLE: CONSULTANT D E-mail address: brian@permitswest.com	Attach wellbore diagram of proposed completion ledge and belief. I further certify that any pit or below- nit or an (attached) alternative OCD-approved plan . DATE: JUNE 9, 2006 Telephone No.: (505) 466-8120
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information grade tank has been/will be constructed SIGNATURE Type or print name: BRIAN WOO For State Use Only 	pleted operations. (Clearly state all pertinent details york). SEE RULE 1103. For Multiple Completions: n above is true and complete to the best of my know pr closed according to NMOCD guidelines [1], a general pern TITLE: CONSULTANT D E-mail address: brian@permitswest.com	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- it or an (attached) alternative OCD-approved plan DATE: JUNE 9, 2006 Telephone No.: (505) 466-8120 SEP 1 5 2006
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the informatio grade tank has been/will be constructed SIGNATURE Type or print name: BRIAN WOO For State Use Only APPROVED BY: 	n above is true and complete to the best of my know r closed according to NMOCD guidelines [], a general pern TITLE: CONSULTANT	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- it or an (attached) alternative OCD-approved plan . DATE: JUNE 9, 2006 Telephone No.: (505) 466-8120
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the information grade tank has been/will be constructed SIGNATURE	pleted operations. (Clearly state all pertinent details york). SEE RULE 1103. For Multiple Completions: n above is true and complete to the best of my know pr closed according to NMOCD guidelines [1], a general pern TITLE: CONSULTANT D E-mail address: brian@permitswest.com	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- nit or an (attached) alternative OCD-approved plan . DATE: JUNE 9, 2006 Telephone No.: (505) 466-8120 SEP 1 5 2006
 13. Describe proposed or com of starting any proposed w or recompletion. I hereby certify that the informatio grade tank has been/will be constructed SIGNATURE Type or print name: BRIAN WOO For State Use Only APPROVED BY: 	pleted operations. (Clearly state all pertinent details york). SEE RULE 1103. For Multiple Completions: n above is true and complete to the best of my know pr closed according to NMOCD guidelines [1], a general pern TITLE: CONSULTANT D E-mail address: brian@permitswest.com	Attach wellbore diagram of proposed completion dedge and belief. I further certify that any pit or below- it or an (attached) alternative OCD-approved plan . DATE: JUNE 9, 2006 Telephone No.: (505) 466-8120 SEP 1 5 2006



the product defines a

Pogo Producing (San Juan) Company Dugan 1 T 980' FNL & 1965' FWL Sec. 3, T. 29 N., R. 5 W. Rio Arriba County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation	<u>GL Depth</u>	KB Depth	<u>Elevation</u>
San Jose	0'	10'	+6,808'
Ojo Alamo sandstone	3,008'	3,018'	+3,800'
Fruitland coal	3,558'	3,568'	+3,250'
Pictured Cliffs sandstone	3,783'	3,793'	+3,025'
Lewis shale	4,008'	4,018'	+2,800'
Total Depth (TD)	4,100'	4,110'	+2,708'

2. NOTABLE ZONES

<u>Gas Zones</u>	Water Zones	<u>Coal Zones</u>
Fruitland	Ojo Alamo	Fruitland
Pictured Cliffs	Fruitland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

• *

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) Double ram or annular 2,000 psi system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at nipple up and after any use under pressure to 1,000 psi.



Pogo Producing (San Juan) Company Dugan 1 T 980' FNL & 1965' FWL Sec. 3, T. 29 N., R. 5 W. Rio Arriba County, New Mexico

Blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2,000 psi. Maximum expected bottom hole pressure will be $\approx 1,775$ psi.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	Grade	Age	Depth Set
8-3/4"	7"	20	K-55	New	200'
6-1/4"	4-1/2"	10.5	K-55	New	4,100'

Surface casing will be cemented to surface with ≈ 61 cubic feet (≈ 52 sacks) Class B + 2% CaCl₂. Volume is based on 100% excess, yield of 1.18 cubic feet per sack, and slurry weight of 15.6 pounds per gallon. W. O. C. = 12 hours. Pressure test surface casing to ≈ 600 psi for 30 minutes.

Production casing hole will be cleaned of rock chips by circulating $\geq 150\%$ of hole volume with mud. Seventy-five barrels of fresh water will next be circulated. Lead with ≈ 783 cubic feet (≈ 380 sacks) of Class B with 2% metasilicate (yield = 2.06 cubic feet per sack, slurry weight = 12.5 pounds per gallon). Tail with ≈ 59 cubic feet (≈ 50 sacks) of Class B with 2% CaCl₂ (yield = 1.18 cubic feet per sack, slurry weight = 15.6 pounds per gallon). Total cement volume = 842 cubic feet @ 100% excess and circulating to surface.

Production casing will have 4-1/2" cement guide shoe and self fill float collar. Float will be placed one joint above the shoe. Centralizers will be spaced as needed.

. •



2,000 PSI BOP SYSTEM



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimury requirements per standard.

۱.

Pogo Producing (San Juan) Company Dugan 1 T 980' FNL & 1965' FWL Sec. 3, T. 29 N., R. 5 W. Rio Arriba County, New Mexico

5. MUD PROGRAM

Surface casing hole will be drilled with fresh water. Production casing hole will be drilled with a fresh water polymer mud. Weighting material will be drill solids or, if needed, barite. Maximum expected mud weight will be 8.5 pounds per gallon.

6. <u>CORES, TESTS, & LOGS</u>

No cores or drill stem tests are planned.

Spectral Density/Dual Spaced Neutron and Dual Induction/Guard with GR, SP, and Caliper and logs will be run from TD to at least the base of the surface casing.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take one week to drill the well and two weeks to complete the well.

