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	. 4	TON DEM	TEN/ED			
Form 3160-3	JUL 20		/ لا الله الا الله الله الله الله الله ا	FORM A	PPROVED	
(August 1999)	5005°		0.7		1004-0136	
UNIȚED STAT	College Colleg	- 7]	27 MH:54	Expires Nove	mber 30, 2000	
DEPARTMENT OF THI BUREAU OF LAND, MAN	(a)	C	mington, NM	5. Lease Serial No. NM 6	1MSF078935	
APPLICATION FOR PERMIT 16		\ \ <b>)</b> /	3 11 (5)(011, 3 11(4)	6. If Indian, Allottee o	r Tribe Name	
	معقوماً والإيالية			7. If Unit or CA Agree	ement Name and No	
1a. Type of Work: N DRILL	ENTER			7. A Ollit of Oll rigid	orners, rvaine and 140.	
6. Type of Well: Oil Well Gas Well Other	of Well: Oil Well Gas Well Other Single Zone Multiple Zone				Thompson C #6S	
2. Name of Operator ENERGEN RESOURCES	9. API Well No.	C 30007				
3A. Address		o. (include area co	de)	30045 32202 10. Field and Pool, or Exploratory		
c/o Walsh Engineering,7415 E. Main, Farmington, NM 87402	892		itland Coal			
4. Location of Well (Report location clearly and in accordance with	any State requ	iirements.*)		11. Sec., T., R., M., or	Blk, and Survey or Area	
At surface 1270' FNL and 2125' FEL				B Sec. 10, T27N, R12W		
At proposed prod. Zone  14. Distance in miles and direction from nearest town or post office		12. County or Parish	13. State			
9 miles south of Farn		<u>M</u>		San Juan	NM	
15. Distance from proposed* location to nearest	16. No. of A	cres in lease	17. Spacing Unit de	dicated to this well		
property or lease line, ft. (Also to nearest drig. unit line, if any)		320+		E/2 320 Acres	· I	
18. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed		20. BLM/BIA Bond		<del></del>	
applied for, on this lease, ft. 500'	17	20 +/-				
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxi	mate date work wi		23. Estimated duration		
5905' GL		June 15, 2	004	] 1 v	veek	
		ttachments				
The following, completed in accordance with the requirements of Or	ishore Oil and	Gas Order No. 1,	shall be attached to thi	s form:		
1. Well plat certified by a registered surveyor.	. !	4. Bond to co	ver the operations ur	iless covered by an existi	ng bond on file (see	
2. A Drilling Plan.		Item 20 ab	ove).			
3. A Surface Use Plan (if the location is on National Forest System	Lands, the	5. Operator ce				
SUPO shall be filed with the appropriate Forest Service Office.		6. Such other authorized		on and/or plans as may b	e required by the	
25. Signature	Nav	ne (Printed/Typed)	<u></u>		Date	
Tan/C. Thoras	1		C. Thompson,		2/25/2004	
Title						
Approved by (Signature)		Agent ne (Printed/Typed	· · · · · · · · · · · · · · · · · · ·		Date	
18/Manteeure	1101	ne (1 rinea/1ypea,	,	['	Date 79-05	
Title	Offi	ce		<u>.</u>		
Atu	<u>i</u>	FR	۷			
Application approval does not warrant or certify that the applicant h	olds legal or e	quitable title to the	ose rights in the subjec	t lease which would entit	tle the applicant to conduc	
operations thereon.  Conditions of approval, if any, are attached.						
Title 18 U.S.C. Section 1001and Title 43 U.S.C. Section 1212, mak	a it a crime for	any person lengui	ingly and willfully to	maka ta any danamant	on against of the Line d	
States any false, fictitious or fraudulent statements or representation				nake to any department of	or agency of the United	
*(Instructions on reverse)	<del></del>			и 4 г.		
			HOLD C194 F	OR NSL		
	DRILL	ING OPERATIONS	AUTHORIZED ARE			
	SUBJE		ICE WITH ATTACHED			
	V14€		- · - "			

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

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

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

District IV PO Box 2088, Santa Fe, NM 87504-2088 State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102
Revised February 21, 1994
Instructions on back

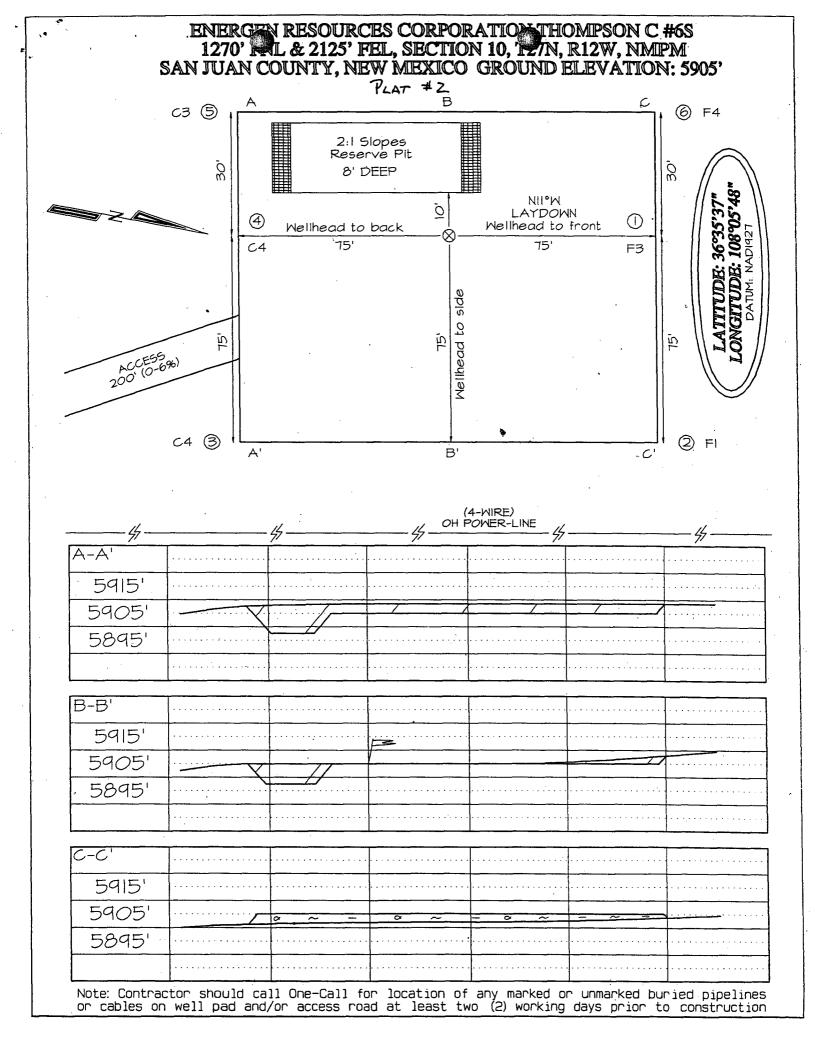
Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

Certificate Number

AMENDED REPORT

	, <u></u>	<u> </u>	WELL			CREAGE DED			<del></del>
API Number Pool Code 30-045-37707 71629						ВА	Pöol Nam SIN FRUITL		
Property	roperty Code Prope					operty Name "Well Number			
614	UIPIO				MPSON C			6S	
'ogrid i 16292	į			ENERGE		rator Name NURCES CORPORATION			*Elevation 5905
		<u> </u>				Location		<del></del>	
UL or lot no.	Section	Township .	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	10	27N	12W		1270	NORTH	2125	EAST	SAN JUAN
	·		ottom	Hole L	ocation I		From Sur	face	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres			- /-	(0)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.	<u> </u>	
	320	).O Acre	s - (E	/2)	Y				
NO ALLOW	WABLE W	ILL BE A	ASSIGNE	D ТО ТН	IS COMPLETI	ON UNTIL ALL	INTERESTS I	HAVE BĖEN (	CONSOLIDATED
		OR A	NON-ST	ANDARD	UNIT HAS BE	EEN APPROVED	BY THE DIV	ISION	
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		1			0	!	contain to the	by certify that the led herein is true best of my knowl	e and complete dedge and belief
	2	17031812	<b>N</b>		270				
	1. 18 C	A	J. A.			1	Signatu	C. /homy	/
		JUL 2005		510	, <u>}</u>	2125'	Paul	,	8 50ml
	Oil	E COUS					Printed	Name	
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	100 T	(0).3		ı			2/25	104	
	* L. g	1/1-000		H			Date	<del></del>	
	`*	Sec.	<b>!</b>						TIFICATION
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5280   		†		10 -	.,,	<del></del>	A   my super	vision, and that ect to the best o	the same is true
ດິ		ì		{}		; !	යි Date		JUNE 27, 2003
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				1)				SECON MEX	OWARD Surveyor
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	(777)	MITTOT	1 1	<b>,</b>		l		-	

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## ENERGEN RESOURCES CORP. OPERATIONS PLAN Thompson C #6S

I. Location: 1270' FNL & 2125' FEL

Date: February 24, 2004

Sec 10 T27N R12W

San Juan County, NM

Field: Basin Fruitland Coal Elev: GL 5905'

Surface: Navajo Tribe / NAPI Minerals: Federal NM 84078

II. Geology: Surface formation Nacimiento

Α.	Formation Tops	Depths
	OjO Alamo	312'
	Kirtland	427 <b>′</b>
	Fruitland	1212'
	Pictured Cliffs	1522'
	Total Depth	1725 <b>'</b>

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 1212' and 1522'.

- B. Logging Program: Induction/GR and density logs at TD.
- C. No over pressured zones are expected in this well. No  $\rm H_2S$  zones will be penetrated in this well. Max. BHP = 600 psig.

#### III. Drilling

- A. Contractor:
- B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached Exhibits #1 and #2 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

Thompson C #6S Operations Plan Pg #2

#### C. Cont.

The 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. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

#### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# K-55
6-1/4"	1725 <b>′</b>	4-1/2"	10.5# K-55

- B. Float Equipment:
- a) Surface Casing: None
- b) Production Casing: 4-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every fifth joint from the top of the well.

#### V. Cementing:

Surface casing: 7" - Use 50 sx (59 cu. ft.) of Cl "B" with  $\frac{1}{4}$  #/sk celloflake and 2% CaCl<sub>2</sub> (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

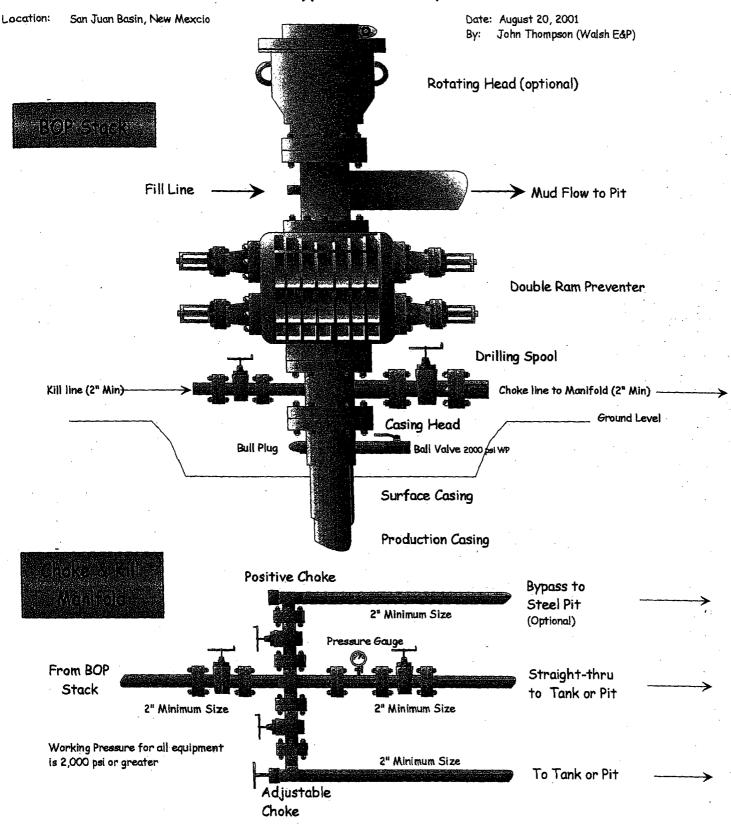
Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. Lead with 115 sx (237 cu.ft) of Cl "B" with 2% metasilicate and ¼ #/sk celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 100 sx (118 cu.ft.) of Cl "B" with ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 355 cu.ft. (100% excess to circulate cement to surface).

Paul C. Thompson, P.E.

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

# Exhibit #1 Typical BOP setup



### ANNULAR PREVENTER

