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LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
E-6515	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		---	
2. Name of Operator ARCO Oil and Gas Company, Division of Atlantic Richfield Company		8. Farm or Lease Name ARCO State	
3. Address of Operator P.O. Box 5540, Denver, Colorado 80217		9. Well No. 101	
4. Location of Well UNIT LETTER <u>B</u> LOCATED <u>512</u> FEET FROM THE <u>North</u> LINE AND <u>2090</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>16</u> TWP. <u>29N</u> RGE. <u>10W</u> NMPM <u>3200</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>16</u> TWP. <u>29N</u> RGE. <u>10W</u> NMPM		10. Field and Pool, or Wildcat Undesignated Gallup	
		12. County San Juan	
		19. Proposed Depth 6140'	
		19A. Formation Gallup	
		20. Rotary or C.T. Rotary	
21. Elevations (Show whether DF, RT, etc.) 5658' GL		21A. Kind & Status Plug. Bond Statewide	
		21B. Drilling Contractor Unknown at this time	
		22. Approx. Date Work will start June, 1983	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4"	8-5/8"	24#	+ 410'	300 sx	Surface
7-7/8"	4-1/2"	11.6#	T.D.	1325 sx	Surface
				1st stage	3471'
				Stage collar	3371'
				2nd stage	Surface

Propose to drill well to sufficient depth to test the Gallup formation, setting surface casing and if productive, setting production casing. If Gallup formation is productive, will perforate, test and treat, if necessary

Attached are: Certified Location Plat
Drilling Plan
BOP schematic
Location Layout and Cut and Fill Diagrams
Topographic and Lease Maps

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MAY 23 1983
OIL CON. DIV.
(DIST. 3)

ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed W.A. Walther, Jr. Title Operations Manager Date 5-18-83
(This space for State Use)

APPROVED BY [Signature] TITLE [Signature] DATE MAY 19 1983
CONDITIONS OF APPROVAL, IF ANY:

All distances must be from the outer boundaries of the Section.

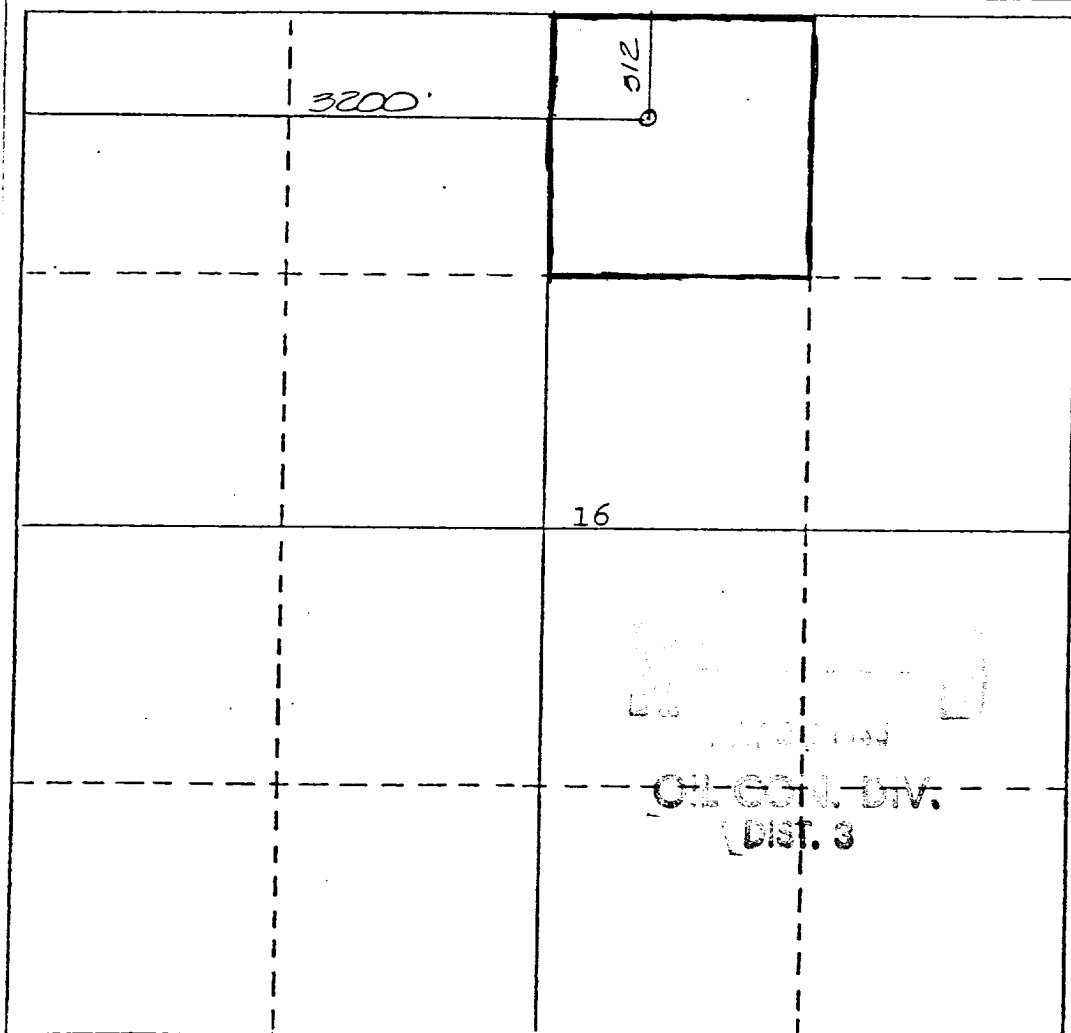
Operator ARCO OIL & GAS COMPANY			Lease STATE		Well No. 101
Unit Letter B	Section 16	Township 29 NORTH	Range 10 WEST	County SAN JUAN	
Actual Footage Location of Well: 512 feet from the NORTH line and 2080 feet from the East line 3200					
Ground Level Elev. 5658	Producing Formation Gallup		Pool Undesignated Gallup		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc? **NA**

☐ Yes ☐ No If answer is "yes," type of consolidation **NA**

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name **W.A. Walther, Jr.**

Operations Manager

Position **ARCO Oil and Gas Co,**
Div of Atlantic Richfield Co
CompanyDate **May 18, 1983**

Date

I certify that the well location shown on this plat was plotted from field notes of surveys made by me or under my supervision and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

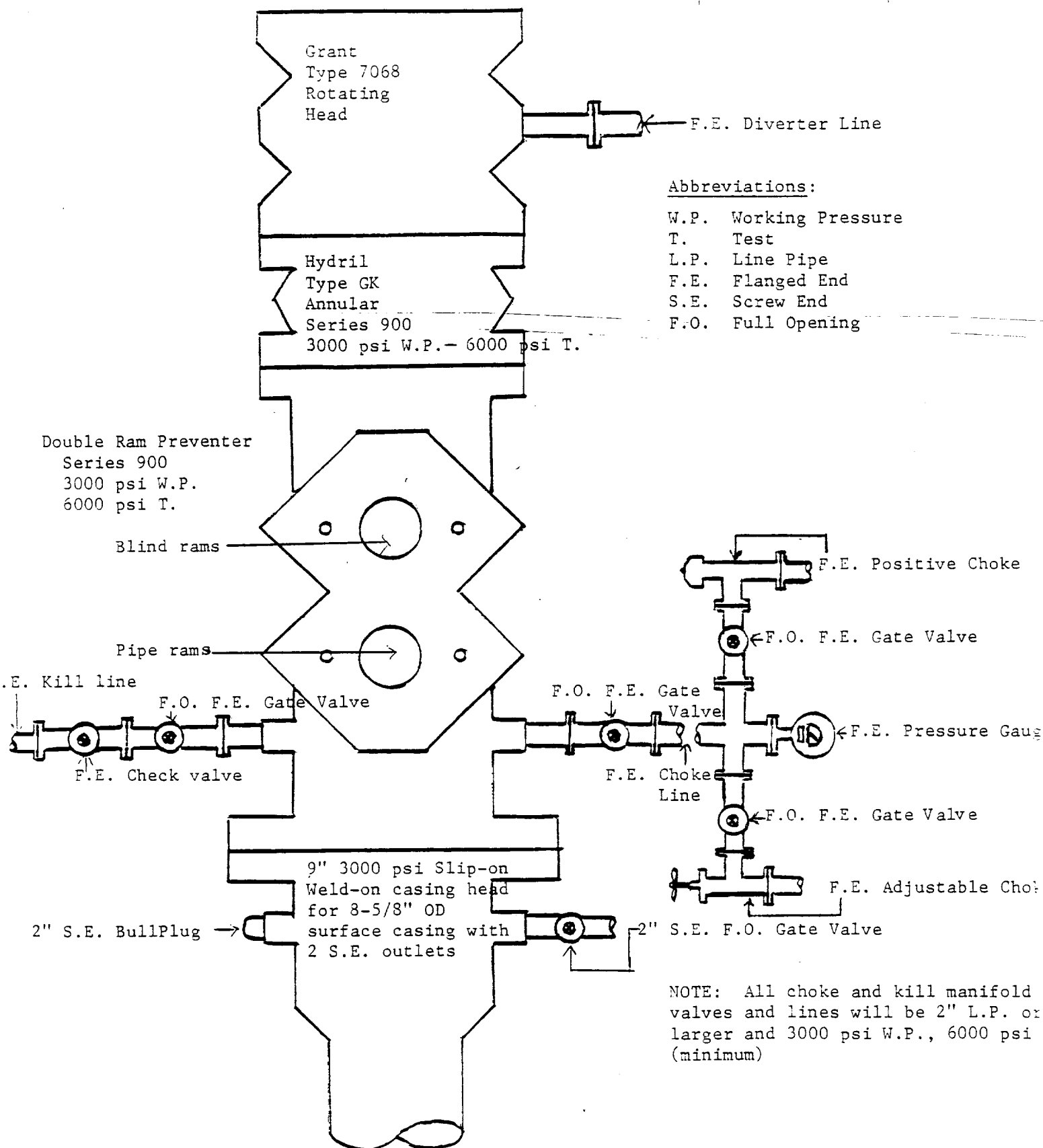
May 4, 1983Registered Professional Engineer
and/or Land Surveyor**Michael Daly**

Certificate No.

5992

General Purpose Worksheet

Subject: BOPE SCHEMATIC ARCO STATE #101 Page No. 01
 File By Date



TEN POINT DRILLING PLAN

Attach to APD Form 9-331-C
ARCO Oil and Gas Company
ARCO STATE #101
NW NE Section 16-29N-10W
San Juan County, New Mexico

1. Surface Geological Formation: Nacimientos

2. Estimated Tops of Geological Markers:

Ojo Alamo	- 798'	Cliff House	- 3671'
Kirtland	- 930'	Menefee	- 3701'
Fruitland	- 1708'	Point Lookout	- 4315'
Pictured Cliffs	- 2005'	Upper Mancos	- 4811'
Lewis	- 2084'	Gallup	- 5538'
Chacra	- 3121'	Lower Mancos	- 6056'

3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

Ojo Alamo	- 798'	(Water)
Fruitland	- 1708'	(Gas & Water)
Pictured Cliffs	- 2005'	(Gas & Water)
Chacra	- 3121'	(Gas, Oil & Water)
Cliff House	- 3671'	(Gas)
Menefee	- 3701'	(Gas)
Point Lookout	- 4315'	(Gas)
Gallup	- 5538'	(Oil & Gas)

4. Proposed Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Interval</u>	<u>Section Length</u>	<u>Size OD</u>	<u>Weight Grade and Joint</u>	<u>New Used</u>
Conductor	---	---	----	----	----	----
Surface	12-1/4"	0- 430'	430'	8-5/8"	24#, K-55, STC	New
Intermediate	---	---	----	----	----	----
Production	7-7/8"	0-6140'	6140'	4-1/2"	11.6#, N-80, LTC	New
Liner	---	---	----	----	----	----

Cement Program

Intermediate -----

Surface Cement to surface with 100% volumetric excess with an estimated 300 sx Class "B" with 2% CaCl₂ + 1/4#/sx Flocele (yield 1.18 cu ft/sx).

