

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.

SF-081089

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

San Juan 32-8 Unit

8. Well Name and No.

SJ 32-8 Unit #237

9. API Well No.

30-045-28209

10. Field and Pool, or exploratory Area

Basin Fruitland Coal

11. County or Parish, State

San Juan, NM

**SUBMIT IN TRIPLICATE**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Phillips Petroleum Company

3. Address and Telephone No.  
5525 Highway 64, NBU 3004, Farmington, NM 87401 505-599-3454

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Unit G, 1790' FNL & 1093' FEL  
Section 23, T31N, R8W

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- Notice of Intent  
 Subsequent Report  
 Final Abandonment

TYPE OF ACTION

- Abandonment  
 Recompletion  
 Plugging Back  
 Casing Repair  
 Altering Casing  
 Other Deepen well & install PCP  
 Change of Plans  
 New Construction  
 Non-Routine Fracturing  
 Water Shut-Off  
 Conversion to Injection  
 Dispose Water

**RECEIVED**  
JUN 2 1998  
OIL CON. DIV.  
DIST. 3

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

A sundry dated 3/23/98 was previously submitted to recaviate and rerun a liner on this well. The procedure description only included cleaning out to TD. Subsequent to the sundry submission it was decided to deepen the well by +/- 50' from 3360' to 3410'. The basis for deepening the well is:

1. Provide an unlined sump area in the wellbore to assist in more effecient separation and removal of water to improve gas production and recovery.

A Progressive Cavity pump will be installed below the liner in this sump area. Plans are to only recaviate this well if production doesn't increase dramatically.

A variance to allow the well to be deepened from the Fruitland Coal into the non-productive (in this area) Pictured Cliffs (PC) interval to a depth of 3410' is requested. Detailed on the attached is a brief description of the procedure and justification for granting the variance to deepen this well into the PC.

14. I hereby certify that the foregoing is true and correct

Signed Tacey Clayton Title Regulatory Assistant Date 5-28-98

(This space for Federal or State office use)

Approved by Al Dagne W. Spencer Title \_\_\_\_\_ Date MAY 20 1998  
Conditions of approval, if any: \_\_\_\_\_

Title 18 U.S.C. Section 1001, 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.

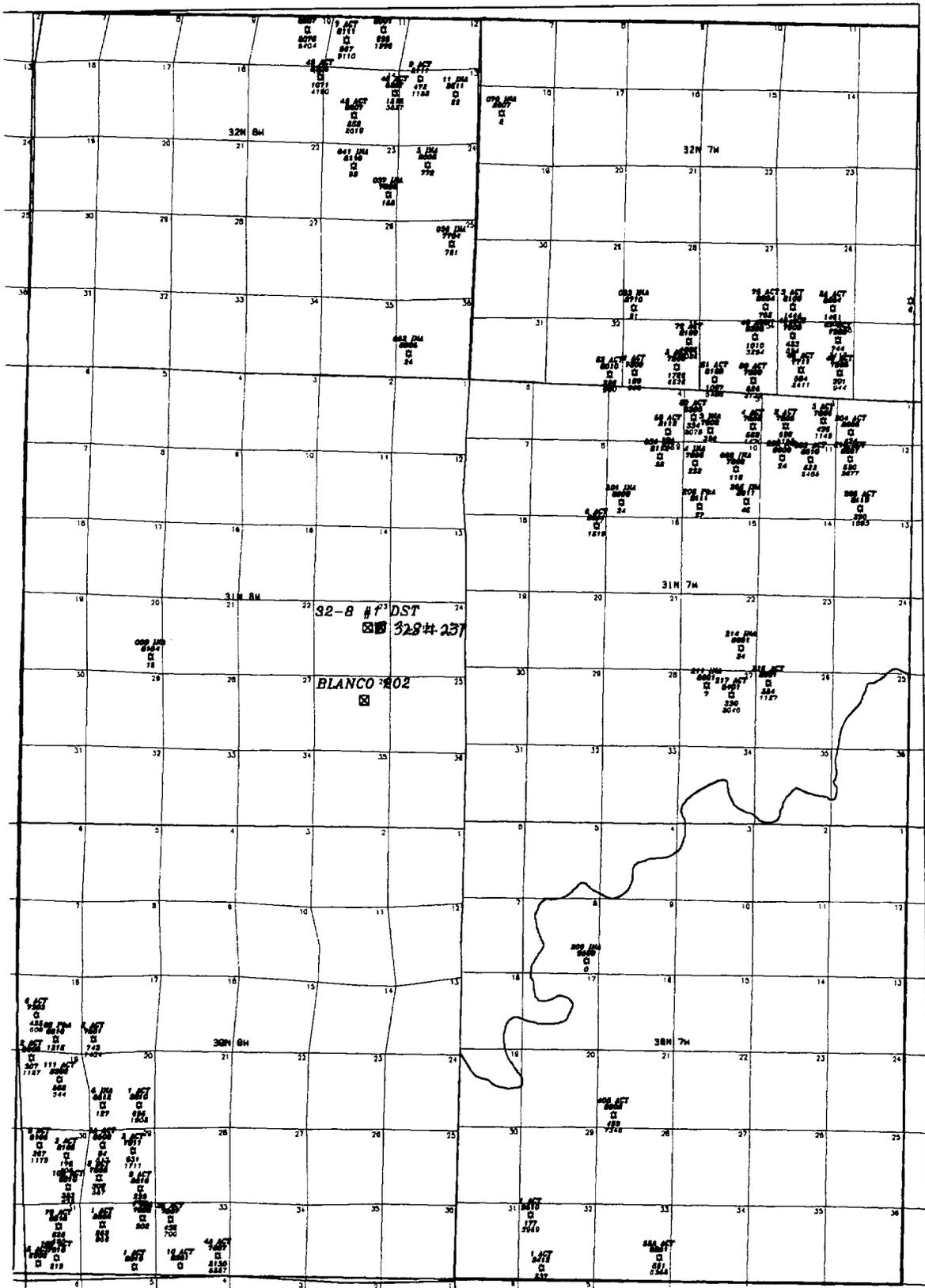
**San Juan 32-8 Unit #237**  
**SF-081089; Unit G, 1790' FNL & 1093' FEL**  
**Section 23, T31N, R8W; San Juan County, New Mexico**

**Procedure to drill out the bottom of the liner, deepen 50' and then install Progressive Cavity Pump.**

1. MIRU rig. Install BPV & ND WH. NU & test BOP. Retrieve BPV.
2. POOH w/2-7/8" tubing.
3. RIH w/mill on 2-3/8" workstring.
4. Drill out bottom of liner. COOH
5. GIH w/4 3/4" bit and drill 4 3/4" hole to 3410'. COOH.
6. RIH w/Progressive Cavity Pump (on 2-3/8" production tubing) below liner.
7. Set BPV.
8. ND BOP & NU & test WH. Retrieve BPV. Return well to production.

Basis for defining the PC as non-productive in the area of the San Juan 32-8 #237 well.

1. There is an off-set well in the same quarter section, SJ 32-8 #1, that had a DST conducted across the Pictured Cliffs interval. The DST showed no influx across this zone. The interval tested by the DST was 3399' – 3533' (Attachment 1).
2. Unless well encounter a naturally fractured interval, the PC and other Cretaceous Sandstones in the San Juan Basin are non-productive without wellbore stimulation such as hydraulic fracturing (Attachment 2).



# Pictured Cliffs Production

Blue - First Production Date  
 Red - Cumulative Production (MMCF)  
 Light Blue - Current Monthly Production (MCF)

WELL RECORD

STATE New Mexico PARISH COUNTY San Juan  
 OPERATOR Phillips Petroleum Company  
 FARM Mass Unit 32-8 WELL NO. I-23  
 LOCATION 1800° FNL, 1600° FRL NR SE NE  
 SECTION 23 TWP-BLK 31N RGE-SURVEY 8W  
 WILDCAT ( ) FIELD (  ) AREA OR FIELD NAME Hlanco Ext.  
 ELEVATION 6485° OF KB 6478° GL

DRILLING AND COMPLETION DATA

SPUDED. DATE	CASING AND TUBING RECORD			
	COMPLETED. DATE	SIZE OD	WT/FT	DEPTH
<u>12-19-52</u>	<u>4-13-53</u>	<u>10-3/4"</u>		<u>160°</u>
TOTAL DEPTH	<u>6240°</u>			<u>250</u>
PLUGGED BACK		<u>7"</u>		<u>5306°</u>
PLUGGED BACK				<u>450</u>
INITIAL POTENTIAL/3 hr	<u>1,540 MCFG</u>			
CHOKE SIZE				

SI CASING PRESSURE 672 hrs. 878#

TUBING PRESSURE

G. O. P.

FLY ZONES 5355-6240° Krv

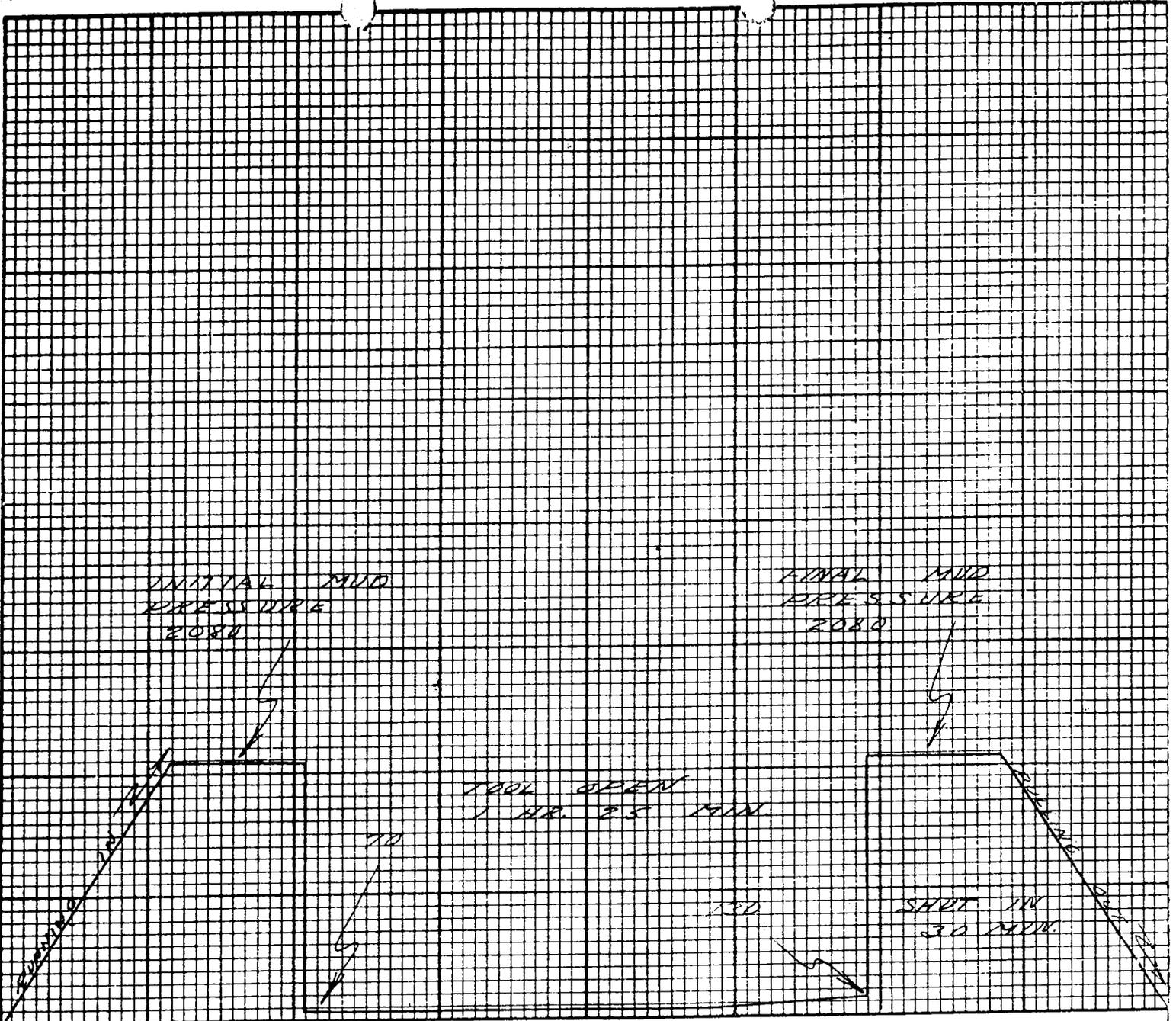
Shot 5355-6240° v/2575 qts.

GEOLOGICAL TOPS

SAMPLE			ELECTRIC LOG		
FORMATION	DEPTH	DATUM	FORMATION	DEPTH	DATUM
			<u>Kirtland</u>	<u>2760°</u>	
			<u>Farrington</u>		
			<u>Fruitland</u>	<u>3095°</u>	
			<u>Pictured Cliffs</u>	<u>3400°</u>	
			<u>Lewis</u>	<u>3520°</u>	
			<u>Cliffhouse</u>	<u>5300°</u>	
			<u>Meneke</u>	<u>5352°</u>	
			<u>Point Lookout</u>	<u>5638°</u>	
			<u>Mancos</u>	<u>6058°</u>	

MISCELLANEOUS INFORMATION

12-17-52 Location  
1-21-53 TO 3533° prep. ahead  
 DST 3399-3533° Tool open 105 min. No gas.  
 Rec. 70° aLi. GCM, FF 90#  
 SIP 140# after 30 min. HP 2010#  
 Shot 5355-6240° v/2575 qts.



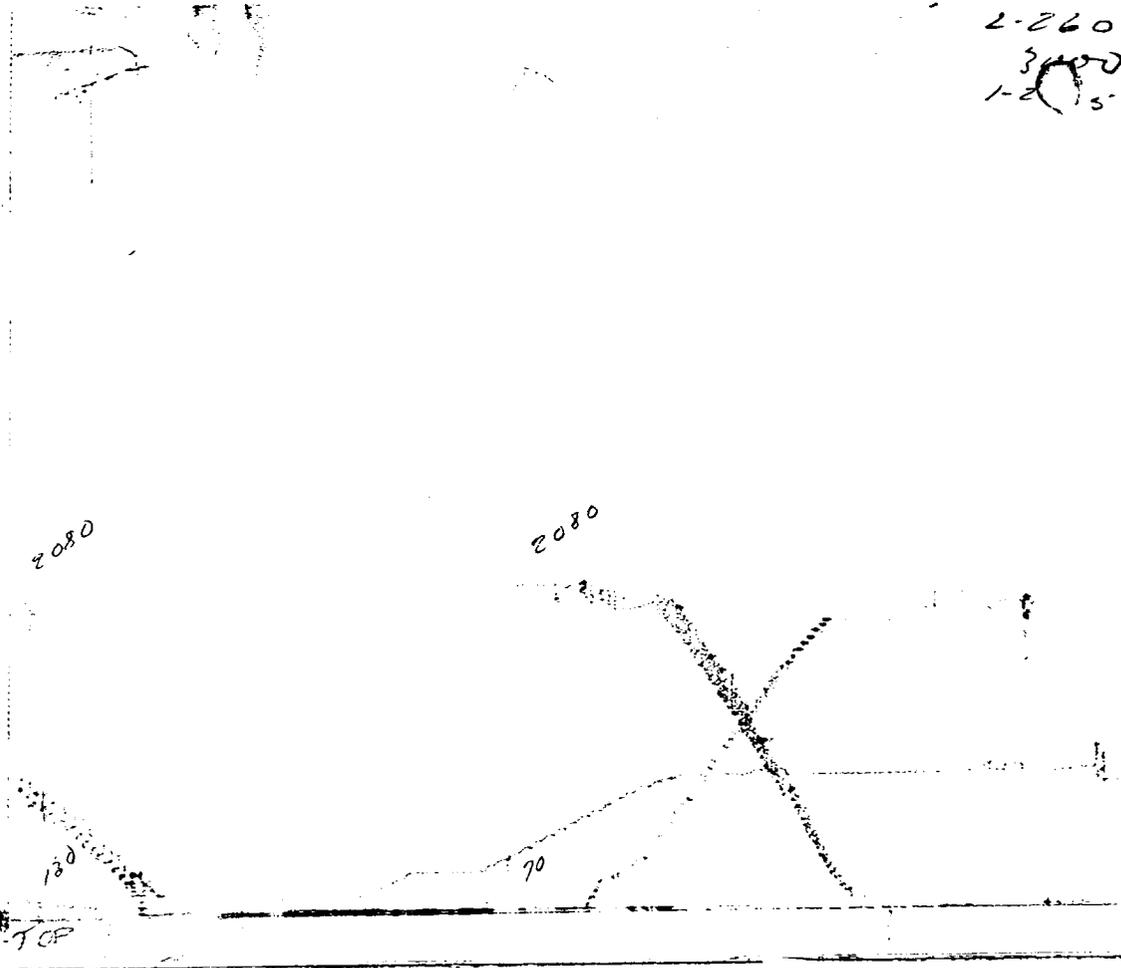
JOHNSTON TESTERS, Inc.  
SUB-SURFACE PRESSURE RECORD

Company	Phillips Petroleum Co.	Date of Test	1-15-53
Well No.	#1-23 Mesa Unit	Recorder No.	L-260
Location	<del>Wichita</del>	Pressure Element	3000#
Packer Set At	3399'	Total Depth	3533'
Water Cushion	-----	Max. Temp.	----- Mud Wt. 10.47
Recovery	20' Drilling Mud Slightly Gas Cut.		
Surface Pressure	-----	Choke Size: Top	3/4" Bottom
Kind of Test	Formation	Operator	Stanley Lowry
		Number of Copies	6
		Test Ticket #	28155

Phillips Petroleum Co.  
Box 939  
Aztec, New Mexico



2-260  
300  
1-2 152



San Juan 32-8 Unit  
Unit G, 1790' FNL & 1093' FEL  
Section 23, T31N, R8W  
San Juan County, NM

*Drill Stem Test Data of the Cretaceous in the San Juan Basin*

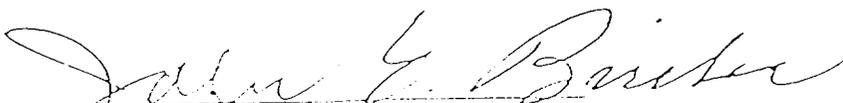
Numerous drill stem tests of the Cretaceous sandstones have been run in the San Juan Basin. Most of them were run in the early years of the development (mid-1940's to late 1950's). Previous studies of the Cretaceous drill stem test data show that the drill stem tests may be divided into four broad categories based on their recoveries. They are listed as follows:

- 1) Recovery of a small amount of measurable gas to surface (10-50 Mcfgd) with little, or no water. Wells of this type today will make commercial gas wells with fracture stimulation.
- 2) Recovery of gas to surface (TSTM) plus gas cut rat-hole mud. Wells of this type today will make sub-commercial to commercial wells after fracture stimulation based on the thickness and development of the sandstone.
- 3) Recovery of no gas to surface and no gas cut rat-hole mud. Wells of this type today will make sub-commercial or possibly commercial gas wells after fracture stimulation.
- 4) Recovery of salty water in significant amounts (1000'  $\pm$ ). Wells of this type are water productive, and the sandstone is porous and permeable.

Production from the Cretaceous in the San Juan Basin is from a basin-centered gas accumulation. The reservoir sandstones have low porosities and permeabilities, and require fracture stimulation to produce. The main exception are areas of natural tectonic fracturing. If any of the Cretaceous reservoirs were significantly porous and permeable enough to produce without stimulation they would be water filled from the outcrop to the center of the basin (eg. Entrada). Wells drilled along the ragged southwestern edge of the basin produce water when completed in the best looking sandstones and make gas wells when completed in the worst looking sandstones.

Canadian Hunter's Elmworth Deep Field (69 TCF) in the Alberta Basin was discovered and developed based on principles and observations of the San Juan Basin. The Elmworth Deep Field produces gas below water primarily due to the tight matrix of the reservoir rocks.

The reservoirs of the San Juan Basin have a pressure gradient of 0.33.

  
John E. Bisher, Petroleum Geologist