

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 Tipperary Oil and Gas Company

3. ADDRESS OF OPERATOR  
 1675 Broadway Suite 2530 Denver, Colo. 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface: 600' FNL 600' FEL Sec. 9-T35S-R26E  
 At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 9 miles east of Dove Creek, Colorado

5. LEASE DESIGNATION AND SERIAL NO.  
 NA *FEE*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 NA

7. UNIT AGREEMENT NAME  
 NA

8. FARM OR LEASE NAME  
 Coal Bed Canyon

9. WELL NO.  
 1-9

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 9-T35S-R26E

12. COUNTY OR PARISH | 13. STATE  
 San Juan | Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 600'

16. NO. OF ACRES IN LEASE  
 280

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH  
 5800'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6699' GR

22. APPROX. DATE WORK WILL START\*  
 7-1-81

*NEW*

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9-5/8 K-55	24#	1900'	1000 sx class H 50-50 poz 2% Bentonite
8-3/4"	5 1/2 K-55	17#	5800'	900 sx class H 50-50- poz 2% Bentonite tail in with 100 sx class H neat.

1. Drill 12 1/4" hole and set 9-5/8" surface casing to 1900 with good returns.
2. Log B.O.P checks in daily drill reports and drill 8-3/4" hole to 5800'
3. Run tests if warranted and run 5 1/2" casing if productive.
4. Run logs, and needed, and perforate and stimulate as needed.

**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**

DATE: June 23, 1981  
 BY: [Signature]

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true resistivity logs, cementing program, if any.

24. SIGNED [Signature] TITLE District Engineer DATE June 23, 1981

(This space for Federal or State office use)

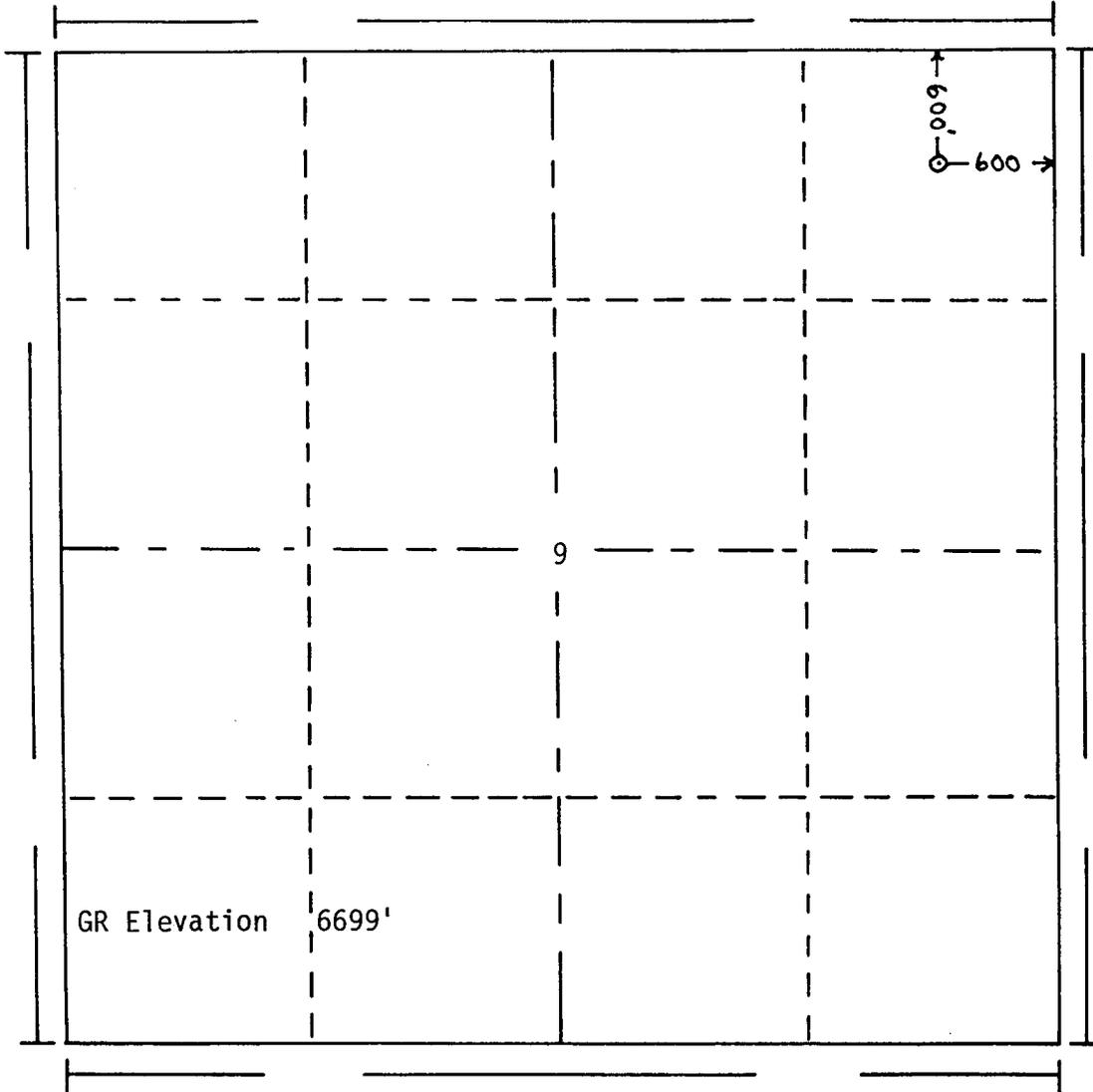
PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



R. 26 E



T. 35 S

Scale... 1" = 1000'

**Powers Elevation of Denver, Colorado**  
 has in accordance with a request from Mike Farrens  
 for Tipperary Oil & Gas  
 determined the location of #1 Coalbed Canyon  
 to be 600FN & 600 FE  
 Range 26E of the Salt Lake Meridian  
 San Juan County, Utah

I hereby certify that this plat is an  
 accurate representation of a correct  
 survey showing the location of  
 #1 Coalbed Canyon

Date: June 22, 1981

T. Nelson  
 Licensed Land Surveyor No. 2711  
 State of Utah

File in Duplicate

DIVISION OF OIL, GAS AND MINING  
OF THE STATE OF UTAH

DESIGNATION OF AGENT  
\*\*\*\*\*

The undersigned producer, operator, transporter, refiner, gasoline or initial purchaser who is conducting oil and/or gas operations in the State of Utah, does, pursuant to the Rules and Regulations and Rules of Practice and Procedure of the Division of Oil, Gas and Mining of the State of Utah, hereby appoint CT Corporation, whose address is 175 S. Main Salt Lake City, Utah 84111, (his, her or its) designated agent to accept and to be served with notices from said Board, or from other persons authorized under the Oil and Gas Conservation Act of the State of Utah.

The undersigned further agrees to immediately report in writing, all changes of address of the agent, and any termination of the agent's authority, and in the latter case, the designation of a new agent or agents shall be immediately made. This designation of agent, however, shall remain in full force and effect until and unless a new designation agent is filed in accordance with said statute and said regulations.

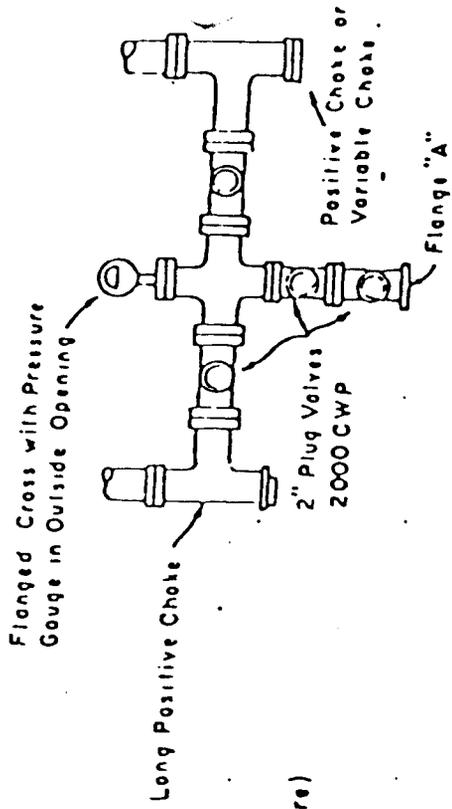
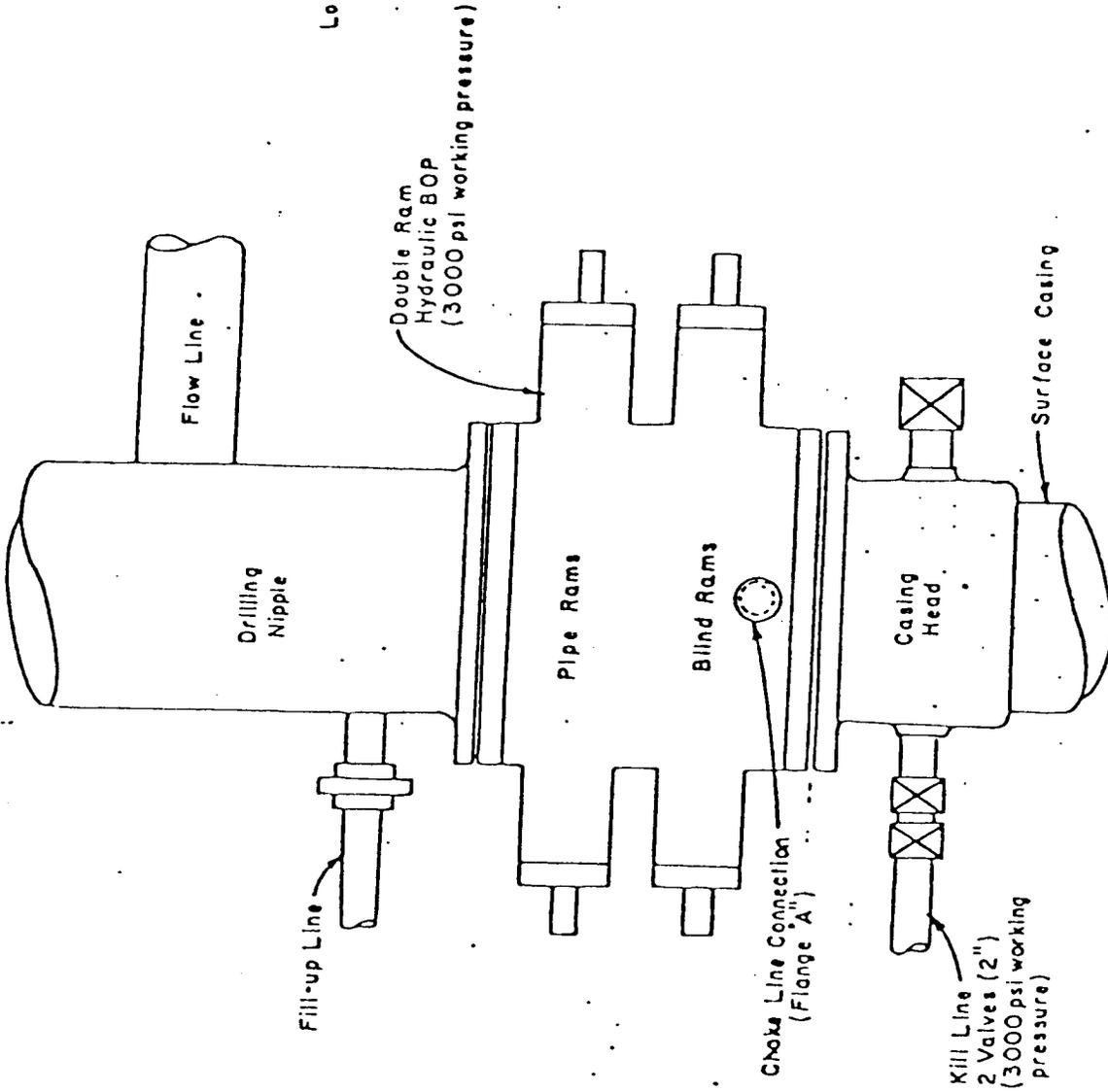
Effective date of designation June 3, 1974

Company Tipperary Oil and Gas Corp. Address 1675 Broadway Suite 2530 Denver, Colo. 80202

By *Mike Fournier* Title District Engineer  
(signature)

NOTE: Agent must be a resident of the State of Utah

Blowout Preventer  
Diagram



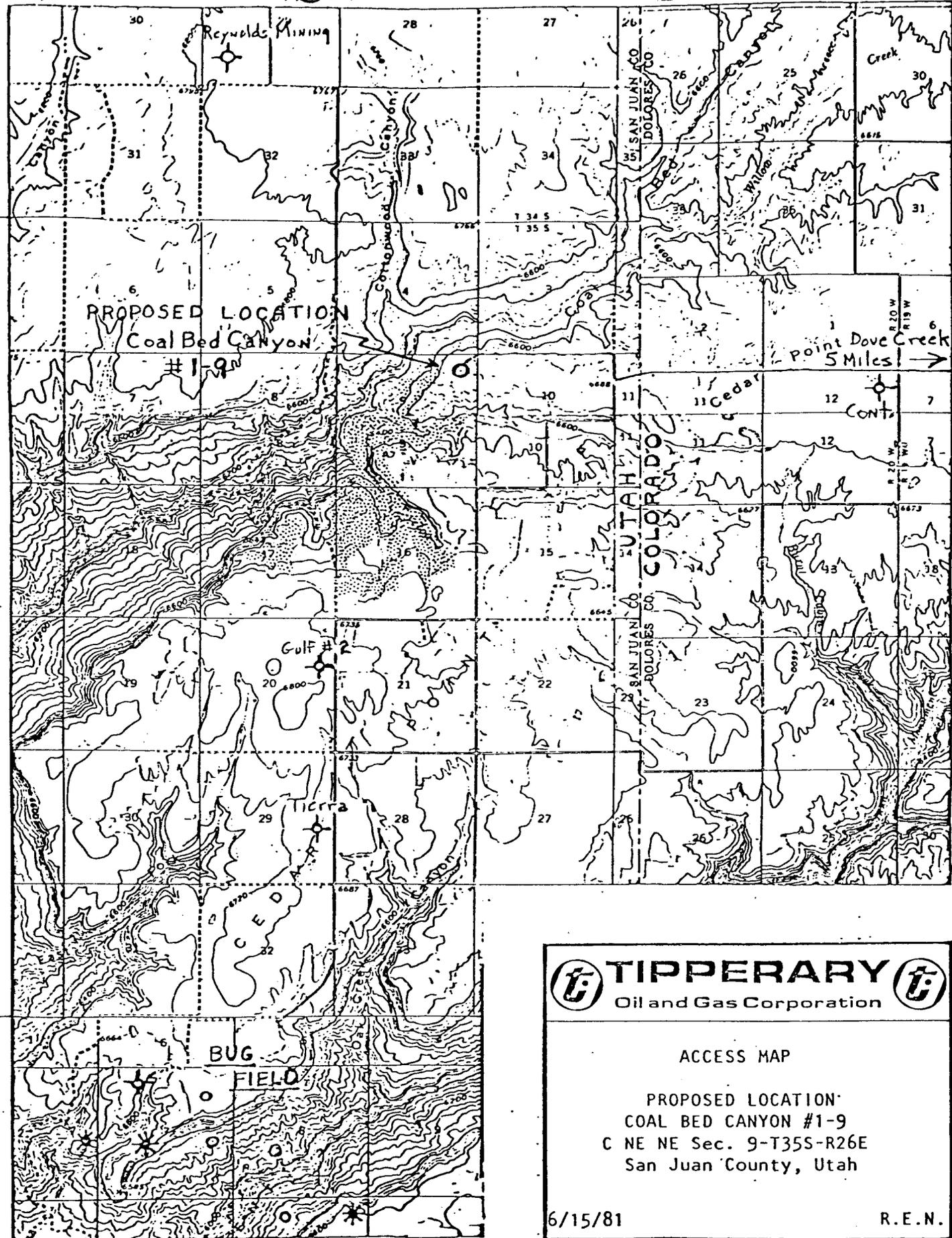
PLAN VIEW - CHOKE MANIFOLD



T 34 S

T 35 S

T 36 S



**TIPPERARY**  
Oil and Gas Corporation

ACCESS MAP

PROPOSED LOCATION  
COAL BED CANYON #1-9  
C NE NE Sec. 9-T35S-R26E  
San Juan County, Utah

6/15/81 R.E.N.

AMENDMENTS TO SURFACE USE PLAN  
and  
RECLAMATION PROCEDURES

H Colo

Lease No.: \_\_\_\_\_

Pre-drill Inspection Date: 6/18/81

Operator: Upperary Oil & Gas Co. Inc. Participants: Mike Farrens

Well Name: Coal Bed Comp #9

Fred P. Frampton  
Powers Elevation Archaeologist

Well Location: T. 35S, R. 26-5-819

Engineer  
Donald & James Huddleston

Jim & Sue Crowley Water

Opal DeWitt BLM

Frank H. Wilson BLM

Construction:

1. The operator or his contractor will contact the San Juan Resource Area Office in Monticello, Utah (Phone (801) 587-2201) 48 hours prior to beginning any work on public land.

2. The dirt contractor will be furnished with a copy of the Surface Use Plan and any additional BLM stipulations prior to any work.
3. The San Juan County Road Department in Monticello will be contacted prior to the use of county roads for this activity, Mr. Dick Traister at (801) 587-2249.
4. Use of water from sources such as wells, springs, streams or stock ponds for activities associated with this well will be approved, prior to use, by the agency or individual holding the water right.
5. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they will be subject to -- prosecution if they are caught disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.
6. Improvement to existing access (will/will ~~not~~) be necessary and will be limited to a total disturbed width of 16 feet. New construction will be limited to a total disturbed width of 16 feet. Road surface will be flat bladed to remove brush, no ditching or water bars or culverts will be installed.

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Surfacing material will not be placed on the access road or location without prior BLM approval.

7. The top 12 inches of soil material will be removed from the location and stockpiled separate from the trees on the S side of the location. Topsoil along the access will be reserved in place.

8. A trash pit will be constructed near the mud tanks with steep sides and dug at least six feet into solid undisturbed material. It will be totally enclosed with a fine mesh wire before the rig moves onto the location.

9. The reserve pit (will/~~will not~~) be lined with commercial bentonite or plastic sufficient to prevent seepage. Keyway.

10. Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

11. A burning permit will be required before burning trash between May 1 and October 31. This can be acquired by contacting the State Fire Warden, John Baker at (801) 587-2705.

## Rehabilitation

1. Immediately on completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. All trash will be disposed of in the trash pit. Non-burnable debris will be hauled to a local town dump site.
2. The operator or his contractor will contact the San Juan Resource Area BLM office in Monticello, Utah, phone (801) 587-2201, 48 hours prior to starting rehabilitation work that involves earthmoving equipment and upon completion of restoration measures.
3. Before any dirt work to restore the location takes place, the reserve pit must be completely dry and any trash it contains must be removed from public lands.
4. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography.
5. The stockpiled topsoil will be evenly distributed over the disturbed area.
6. All disturbed areas will be scarified with the contour to a depth of          inches.
7. Seed will be (broadcast/drilled) at a time to be specified by the BLM with the following seed prescription. When broadcast seeding, a harrow or some such implement will be dragged over the seeded area to assure seed cover.

- \_\_\_ lbs/acre Indian ricegrass (Oryzopsis hymenoides)
- \_\_\_ lbs/acre Fourwing saltbush (Atriplex canescens)
- \_\_\_ lbs/acre Sand dropseed (Sporobolus cryptandrus)
- \_\_\_ lbs/acre Green ephedra (Ephedra viridis)
- \_\_\_ lbs/acre Cliffrose (Cowania mexicana)
- 4 lbs/acre Crested wheatgrass (Agropyron desertorum)
- \_\_\_ lbs/acre Western wheatgrass (Agropyron smithii)
- \_\_\_ lbs/acre Alkali sacaton (Sporobolus airoides)
- \_\_\_ lbs/acre Rubber rabbitbrush (Chrysothamnus nauseosus)
- \_\_\_ lbs/acre \_\_\_\_\_
- \_\_\_ lbs/acre \_\_\_\_\_
- \_\_\_ lbs/acre \_\_\_\_\_

8. After seeding is complete the stockpiled trees will be scattered evenly over the disturbed areas and walked down with a dozer. The access will be blocked to prevent future use.

NA 9. Water bars will be constructed as directed by BLM to control erosion.

Production

1. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the rehabilitation section. Enough topsoil will be retained to reclaim the remainder of the location at a future date. The remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

2. All above-ground production facilities will be painted a neutral color to be approved by the BLM.

3. The access shall be upgraded to the following specifications:

14+

\*\* FILE NOTATIONS \*\*

DATE: June 26, 1981

OPERATOR: Lipperary Oil & Gas Co.

WELL NO: Coal Bed Canyon #1-9

Location: Sec. 9 T. 35S R. 26E County: San Juan

File Prepared:

Entered on N.I.D:

Card Indexed:

Completion Sheet:

API Number 43-037-30686

CHECKED BY:

Petroleum Engineer: M.J. Minder 6-26-81

Director: \_\_\_\_\_

Administrative Aide: as per Rule C-3, above boundaries

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. \_\_\_\_\_

O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

Lease Designation

Plotted on Map

Approval Letter Written

Hot Line

P.I.

June 26, 1981

Tipperary Oil & Gas Co.  
1675 Broadway, Suite #2530  
Denver, Colo. 80202

RE: Well No. Coal Bed Canyon #109  
Sec. 9, T. 35S, R. 26E,  
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to oil is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30686.

Sincerely,

DIVISION OF OIL, GAS, AND MINING



Michael T. Minder  
Petroleum Engineer

MTM/db  
CC: OGM

DRILLING REPORT

RECEIVED

Tipperary 11 22 1981

WELL NAME: COAL BED CANYON #1-9 DAY: 17 DEPTH: 4399 DIVISION OF  
 DATE: July 20, 1981 PRESENT OPERATION: Drilling OIL, GAS & MINING  
 PROGRESS LAST 24 HOURS: 240'  
 FORMATION: Cutler  
 WT. ON BIT: 15-20,000 HOOK LOAD: 87,000 RPM: 90-100  
 BIT NO: 6-7 SER. NO: BR 7188 SIZE: 8 3/4 TYPE: F-3 JETS: 11-11-13  
 DEPTH IN: 2908 4292 DEPTH OUT: 4292 PROGRESS: 1384 67  
 HOURS: 69 3 DEVIATION: 8° @ 4190; 8° @ 4291  
 MUD TYPE: \_\_\_\_\_ WT: 8.8 VIS: 38 pH: 9.5 WL: 14  
 TIME BREAKDOWN: DRILLING: 15½ CIRCULATING: 1 3/4  
 REPAIRS: 1¼ SURVEY: 1¼  
 TRIPPING: 4¼ MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$14,422 CUM COST: \$204,363

ENGINEERING REPORT: Drilling Break 4144-4168 1 min/ft No gas  
 4268-4284 1½ min/ft N.S.

PV 11. YP 9. Gels 4/12. Solids 3%.

GEOLOGIC REPORT: Lithology: Lower Cutler siltstones - sandstones.

Background gas: 2-4 units

Revised Sample Tops: Morrison	65	(+6644)
Summerville-Curtis	1033	(+5676)
Entrada	1065	(+5644)
Carmel	1214	(+5495)
Navajo	1250	(+5459)
Kayenta	1442	(+5267)
Wingate	1720	(+4989)
Chinle	1890	(+4819)
Shinarump	2630	(+4079)
Cutler	2720	(+3989)

DRILLING REPORT

**RECEIVED**

*Isserary*

JUL 22 1981

WELL NAME: COAL BED CANYON #1-9 DAY: 14 DEPTH: 361 DIVISION OF OIL, GAS & MINING  
 DATE: July 17, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 456'  
 FORMATION: Cutler  
 WT. ON BIT: 40,000 HOOK LOAD: \_\_\_\_\_ RPM: 60  
 BIT NO: 6 SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: 2908 DEPTH OUT: \_\_\_\_\_ PROGRESS: 456  
 HOURS: 17½ DEVIATION: \_\_\_\_\_  
 MUD TYPE: \_\_\_\_\_ WT: 8.7 VIS: 34 pH: 8.0 WL: 20  
 TIME BREAKDOWN: DRILLING: 17½ CIRCULATING: \_\_\_\_\_  
 REPAIRS: ¼ SURVEY: \_\_\_\_\_  
 TRIPPING: 4 MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: Up & down w/tools: 2½  
 DAILY COST: \$12,033 CUM COST: \$196,958 (adjusted cost: \$171,045)

ENGINEERING REPORT:

GEOLOGIC REPORT: Background gas: 3 units. Trip gas 140 units.

Siltstone, interbedded shale and sand, red brown to red, light green in part, micaceous, blocky, platy, firm to hard, non-calcareous.

Shale, brick red to dark brown, blocky, fissile in part, firm, slightly micaceous, non-calcareous.

Sandstone, white, frosted, fine to medium grained, angular to sub-angular, poor sorting, poor to medium cementing, slightly calcareous.

Average 2 minutes per foot drilling.

P

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: Tipperary

WELL NAME: Coal Bed Canyon #1-9

SECTION 9 NE NE TOWNSHIP 35S RANGE 26E COUNTY San Juan

DRILLING CONTRACTOR Bayless Drilling

RIG # 5

SPUDED: DATE 7-2-81

TIME 4:00 ?

How rotary

DRILLING WILL COMMENCE \_\_\_\_\_

REPORTED BY Mike Farren

TELEPHONE # 303-573-5511

DATE 7-2-81 SIGNED DB



# TIPPERARY

Oil and Gas Corporation



## PRELIMINARY GEOLOGICAL WELL PROGNOSIS

PROSPECT NAME: COAL BED CANYON  
 TIPPERARY WORKING INTEREST: 50% (Standard Energy Corp. 50%)  
 OPERATOR: Tipperary Oil and Gas Corp.  
 WELL NAME: Coal Bed Canyon WELL NO: \_\_\_\_\_  
 LOCATION: C NE NE (660' FNL, 660' FEL) Section 9-T35S-R26E, San Juan County, Utah  
 WELL TYPE: Wildcat PROPOSED TOTAL DEPTH: 5800'  
 PRIMARY OBJECTIVE: \*Desert Creek SECONDARY OBJECTIVE(S): Ismay  
 ESTIMATED ELEVATION: 6685' G.L.; 6700' K.B.

### MUD LOGGING

ONE MAN UNIT - START DEPTH: Surface Casing TO Total Depth  
 TWO MAN UNIT - START DEPTH: \_\_\_\_\_ TO \_\_\_\_\_  
 REMARKS: Mud log scale 5' = 100'

### DRILLING TIME AND SAMPLES

DRILLING TIME: 5 foot drill time in mins./ft.  
 SAMPLE PROCEDURE: TAKE 30 foot SAMPLES FROM surface casing TO 2000 feet  
 AND 10 foot SAMPLES FROM 2000 feet TO T.D.  
 REMARKS: 2 dry cuts to: Tipperary, Denver and Standard Energy, Salt Lake City.  
Bulk samples to be shipped to Amstrat, Denver.

### ANTICIPATED FORMATION TOPS

(unless otherwise specified by well site geologist)

FORMATION TOPS:	Revised	DEPTH:	SUBSEA:
Entrada	925	800	+5900
Navajo	1100	975	+5725
Wingate	1550	1500	+5200
Shinarump <u>Chinle 1850</u>	2400	2350	+4350
Cutler	2575	2425	+4275
Hermosa		4210	+2490
Ismay		5400	+1300
Desert Creek - Upper		5650	+1050
* Desert Creek - Lower		5690	+1010
Paradox Salt		5780	+920

### RECOMMENDED CORRELATION LOGS

- (1) Gulf - No. 2 Coal Bed  
 Sec. 20-T35S-R26E  
 San Juan County, Utah
- (2) Wexpro Co. - Bug #1  
 Sec. 12-T36S-R25E  
 San Juan County, Utah
- (3) Reynolds Mining - #1 Meyer  
 Sec. 29-T34S-R26E  
 San Juan County, Utah

WELL NAME COAL BED CANYON #1-9  
PROSPECT COAL BED CANYON  
COUNTY & STATE SAN JUAN COUNTY

*Sipperary*

DST NO. 1 INTERVAL 2856-2910 FORMATION CUTLER

PRESSURES: TOP CHART

TIME:

( IHP)	Initial Hydrostatic Pressure	<u>1266</u>		
( IFP)	Initial Flow Pressure	<u>24</u>	to	<u>79</u>
( ISIP)	Initial Shut-in Pressure	<u>824</u>		
( FFP)	Final Flow Pressure	<u>79</u>	to	<u>197</u>
( FSIP)	Final Shut-in Pressure	<u>710</u>		
( FHP)	Final Hydrostatic Pressure	<u>1260</u>		

15 Min  
30 Min  
60 Min  
120 Min

Surface Action:

INITIAL OPEN: WEAK BLOW THROUGHOUT  
FINAL OPEN: WEAK BLOW DECREASING  
NO GAS TO SURFACE

Recovery: 350' TOTAL FLUID

90' MUD  
200' MUD CUT WATER  
60' WATER

TOP SAMPLE Rw .73 @ 76°  
BOTTOM SAMPLE Rw .70 @ 75°

Sample Chamber:

2150 cc. GAS CUT OIL AND WATER @ 410 PSI; B.H.T. 90°

WELL NAME COAL BED CAN #1-9

PROSPECT COAL BED CANYON

COUNTY & STATE San Juan County, Utah

*Jipparary*

DST NO. 2

INTERVAL 4557-4624

FORMATION Upper Hermosa

PRESSURES:

TIME:

( IHP) Initial Hydrostatic Pressure 2145

( IFP) Initial Flow Pressure 36 to 60

( ISIP) Initial Shut-in Pressure 835

( FFP) Final Flow Pressure 103 to 152

( FSIP) Final Shut-in Pressure 1235

( FHP) Final Hydrostatic Pressure 2040

15 Mi

30 Mi

60 Mi

120 Mi

Surface Action: Opened with weak blow, slow increase to 4" under water.  
Final Flow opened with very weak blow increasing to 2" under water; started decreasing in 15 minutes; dead in 45 minutes.

Recovery:

200' mud

100' water cut mud

Sample Chamber:

2150 cc mud cut water at 25 psi; Rw .1 at 82°.

(Pit mud .85 at 82°)

BHT 114° F.

WELL SITE PERSONNEL

COMPANY GEOLOGIST: Bob Nordeck PHONE: (OFF.) 303/573-5511 (HOME) 303/772-9191
CONSULTING GEOLOGIST: C. M. Krivanek PHONE: (OFF.) 505/327-3978 (HOME)
MUD LOGGER: Rocky Mountain Geo-Engineering Co PHONE: (OFF.) 303/243-3044 (HOME)

DRILLING MUD

REQUIRED CONDITIONS: Fresh water mud
DEPTH: surface - T.D.
REASON: Too many water sands for air drilling
Anticipate water Ss's - Dakota Entrada, Navajo, & Wingate
Near surface - 1500'

DRILLSTEM TESTS

ANTICIPATED DEPTH: #1 4200-5000' #2 5500 #3 5650-5700 #4 5700-5750 #5
FORMATION: Hermosa Ss's Ismay Desert Creek Desert Creek
FLUID ANALYSIS: Yes with Rw Yes with Rw Yes with Rw Yes with Rw

CORES

COMPANY: None anticipated PHONE:
TYPE: [ ] CONVENTIONAL [ ] SIDE WALL [ ] RUBBER SLEEVE [ ] PRESSURE DEPTH BARREL LENGTH
#1 FROM TO
#2 FROM TO
#3 FROM TO
ANALYSIS BY:
REMARKS:

WIRE LINE LOGGING

COMPANY: Dresser Atlas LOCATION: Farmington, N.M. PHONE: 505/325-5066
BACK UP COMPANY: Schlumberger LOCATION: Farmington, N.M. PHONE: 505/325-5000
RUN 1 Dual Induction-Focused Log - SP & GR DEPTH: surface casing-T.D.
RUN 2 Density-Neutron w/GR DEPTH: 4000'-T.D.
RUN 3 Sonic Log w/GR DEPTH: 4000'-T.D.
DIPMETER: FROM None TO VELOCITY SURVEY [ ] YES [ ] NO
REMARKS:

STANDARD EQUIPMENT AND PRACTICES

SAFETY: All Corporate, local, state and federal safety regulations and equipment will be observed and implemented.
MUD LOGGING: The Unit will be equipped with Hot Wire, Chromatograph and mobile phone. Unit Operator will mail log sheets to the operator and other designated parties on a regular basis. Morning reports will be called in daily. Unit Operator and, or Consulting Geologist will IMMEDIATELY report all shows, gas increases, tops, and anticipated drilling breaks. Unless otherwise instructed by the Company Geologist cut no more than 10' of any drilling break before circulating it up. This is subject to change with the nature of the anticipated zone.
DRILLING RIG: The rig should be equipped with a fully operational shale shaker, Geolograph (or equivalent) and sufficient power plant facilities to provide proper electrical power to the Mud Logging Unit at all times.

ADDITIONAL REMARKS: 6/15/81 By: R. E. Nordeck





DRILLING REPORT

10

Tipperary 007005

WELL NAME: COAL BED CANYON #1-9 DAY: 23 DEPTH: 5704  
DATE: July 26, 1981 PRESENT OPERATION: Logging  
PROGRESS LAST 24 HOURS: 172'  
FORMATION: Paradox  
WT. ON BIT: 40 HOOK LOAD: 116 RPM: 65  
BIT NO: 7R SER. NO: BR7188 SIZE: 8 3/4 TYPE: F3 JETS: 11-11-13  
DEPTH IN: 4292 DEPTH OUT: 5704 PROGRESS: 1412  
HOURS: 86 3/4 DEVIATION: \_\_\_\_\_  
MUD TYPE: \_\_\_\_\_ WT: 9.2 VIS: 65 pH: 6.0 WL: 24  
TIME BREAKDOWN: DRILLING: 5 1/4 CIRCULATING: 1/2  
REPAIRS: 4 SURVEY: \_\_\_\_\_  
TRIPPING: 4 1/4 MIXING MUD: \_\_\_\_\_  
LOGGING: 8 1/4 OTHER: WO log: 1 3/4  
DAILY COST: \$12, 004 CUM COST: \$272,752

ENGINEERING REPORT:

GEOLOGIC REPORT:

To Mike M.

DRILLING REPORT

WELL NAME: COAL BED CANYON #1-9 DAY: 5 DEPTH: 1585'  
 DATE: July 8, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 664  
 FORMATION: Navajo  
 WT. ON BIT: 40-45,000 HOOK LOAD: \_\_\_\_\_ RPM: 60  
 BIT NO: 4 SER. NO: BJ9694 SIZE: \_\_\_\_\_ TYPE: F-2 JETS: 14-14  
 DEPTH IN: 898 DEPTH OUT: \_\_\_\_\_ PROGRESS: 687  
 HOURS: 14 3/4 DEVIATION: 1 3/4° @ 1404  
 MUD TYPE: \_\_\_\_\_ WT: 9.0 VIS: 36 pH: 7.5 WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: 23 1/4 CIRCULATING: \_\_\_\_\_  
 REPAIRS: 1/4 SURVEY: 1/2  
 TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$9,130 CUM COST: \$89,265  
 Mud cost: \$788 \$13,462

ENGINEERING REPORT:

GEOLOGIC REPORT: Sample top: Navajo 1082 (+5626)  
 Kayenta 1400+ (very questionable top)  
 Lithology: Sandstone, light orange to reddish brown,  
 fine to medium grained, friable, poor to  
 fair sorting.  
 Background gas: average 6 units; no connection or trip gas.

RECEIVED

JUL 10 1981

DIVISION OF  
OIL, GAS & MINING

DRILLING REPORT

WELL NAME: Coal Bed Canyon #1-9 DAY: 4 DEPTH: 921  
DATE: July 7, 1981 PRESENT OPERATION: Drilling  
PROGRESS LAST 24 HOURS: 234'  
FORMATION: Entrada  
WT. ON BIT: 40-45,000# HOOK LOAD: \_\_\_\_\_ RPM: 60  
BIT NO: 2,3,4 SER. NO: BJ 9694 (4) SIZE: 12 1/4 TYPE: J33 (3) JETS: 14-14-14  
JD151 (3) DEPTH IN: 451, 729, 898 DEPTH OUT: 729, 898 PROGRESS: 278, 169, 23  
HOURS: 22, 14, 1 1/2 DEVIATION: 3° @ 729; 2 3/4° @ 898  
MUD TYPE: \_\_\_\_\_ WT: 8.9 VIS: 36 pH: 7.0 WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: 19 3/4 CIRCULATING: \_\_\_\_\_  
REPAIRS: 1/4 SURVEY: 1/4  
TRIPPING: 3 3/4 MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
DAILY COST: \$20,350 CUM COST: \$81,200

Mud daily: \$5900; Cum: \$12,674

ENGINEERING REPORT:

RECEIVED  
JUL 10 1981

DIVISION OF  
OIL, GAS & MINING

GEOLOGIC REPORT: Drilling @ 965 @ 8 am.

Lithology: Ss, tan to light brown, fine grained, well sorted, slightly calcareous. Probably in top of Entrada Sandstone @ 900'+; no sample tops picked.

Background gas: Trace - 2 units.

Trip Gas @ 898': 11 units.

DRILLING REPORT

WELL NAME: Coal Bed Canyon DAY: 3 DEPTH: 686'  
DATE: July 6, 1981 PRESENT OPERATION: Drilling  
PROGRESS LAST 24 HOURS: 279'  
FORMATION: Dakota  
WT. ON BIT: 40-45,000# HOOK LOAD: 50,000 RPM: 65  
BIT NO: 1,2 SER. NO: HP898 SIZE: \_\_\_\_\_ TYPE: OSXIGJ JETS: 14-14-14  
DEPTH IN: 30 DEPTH OUT: 451' PROGRESS: 421 235  
HOURS: 26 17½ DEVIATION: 1<sup>0</sup>@ 420' 1½ @ 636'  
MUD TYPE: \_\_\_\_\_ WT: 9.0 VIS: 42 PH: \_\_\_\_\_ WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: 20-3/4 CIRCULATING: \_\_\_\_\_  
REPAIRS: \_\_\_\_\_ SURVEY: 1  
TRIPPING: 1-3/4 MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: Ream ½  
DAILY COST: 12,050 CUM COST: 60,850

ENGINEERING REPORT: Bit sub 20  $6\frac{1}{4}$  drill collars.

GEOLOGIC REPORT:

DRILLING REPORT

WELL NAME: Caol Bed Canyon 1-9 DAY: 2 DEPTH: 407'  
DATE: July 5, 1981 PRESENT OPERATION: Drilling  
PROGRESS LAST 24 HOURS: 217'  
FORMATION: Dakota  
WT. ON BIT: ALL HOOK LOAD: \_\_\_\_\_ RPM: 60-80  
BIT NO: 1 SER. NO: \_\_\_\_\_ SIZE: 12¼ TYPE: J-4 JETS: 14-14-14  
DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: 377'  
HOURS: 23-3/4 DEVIATION: \_\_\_\_\_  
MUD TYPE: \_\_\_\_\_ WT: 8.6 VIS: 37 pH: 7.5 WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: 16½ CIRCULATING: 1  
REPAIRS: \_\_\_\_\_ SURVEY: ½  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: WO LCM  
DAILY COST: 14,520 CUM COST: 48,800

ENGINEERING REPORT:

GEOLOGIC REPORT:

DRILLING REPORT

WELL NAME: Coal Bed Canyon DAY: 1 DEPTH: 190'  
DATE: July 4, 1981 PRESENT OPERATION: Mix Mud and LCM  
PROGRESS LAST 24 HOURS: 160'  
FORMATION: Dakota  
WT. ON BIT: ALL HOOK LOAD: \_\_\_\_\_ RPM: 65-80  
BIT NO: 1 SER. NO: EX 047 SIZE: 12 1/4 TYPE: J-4 JETS: 14-14-14  
DEPTH IN: 30' DEPTH OUT: \_\_\_\_\_ PROGRESS: 160  
HOURS: 7 1/4 DEVIATION: 1/2<sup>0</sup> @ 190'  
MUD TYPE: \_\_\_\_\_ WT: 8.7 VIS: 58 pH: \_\_\_\_\_ WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: 7 1/4 CIRCULATING: 3 1/4  
REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: 13 1/2  
DAILY COST: 14,760 CUM COST: \$34,280

ENGINEERING REPORT: Spud 7:30 pm 7-3-81

LC. 100 BM w/10% LCM. Dr1 175' LC. 200 BM 20% LCM  
Dr1 190' LC. Mix mud & LCM

GEOLOGIC REPORT:

DRILLING REPORT

WELL NAME: Coal Bed Canyon 1-9 DAY: \_\_\_\_\_ DEPTH: 30'  
DATE: July 3, 1981 PRESENT OPERATION: MIRURT  
PROGRESS LAST 24 HOURS: \_\_\_\_\_  
FORMATION: \_\_\_\_\_  
WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
MUD TYPE: \_\_\_\_\_ WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
DAILY COST: 19,520 CUM COST: \_\_\_\_\_

ENGINEERING REPORT: Set 30' of conductor pipe.

GEOLOGIC REPORT:

DRILLING REPORT

WELL NAME: Coal Bed Canyon 1-9 DAY: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
DATE: July 2, 1981 PRESENT OPERATION: Moving in & rigging up rotary tools  
PROGRESS LAST 24 HOURS: \_\_\_\_\_  
FORMATION: \_\_\_\_\_  
WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
MUD TYPE: \_\_\_\_\_ WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
DAILY COST: \_\_\_\_\_ CUM COST: \_\_\_\_\_

ENGINEERING REPORT: Location: 600' FNL, 600' FEL, Sec. 9-T35S-R26E,  
San Juan County, Utah. Should spud this pm. FIRST REPORT.

GEOLOGIC REPORT:

**RECEIVED**  
JUL 12-2-81

DIVISION OF  
OIL, GAS & MINING

NEW LOCATION: 600' FNL 600' FEL of Se  
9, T35S R26E, San Juan Co., Utah.  
Bayless Drlg Co., Contractor, Proposed  
TD 5800'. RURT.

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date 7-3-81  
Proposed TD 5,800'

7-3-81 Spud 7:30 PM, 7-3-81. 30' RURT.  
MI rat hole rig. Drld 20" hole  
to 30' & set 16" conductor. Cmtd  
@ 9:30 PM, 7-2-81. MIRT. SDFN.  
CWC \$19,570 CWC \$19,570  
7-4-81 190' mixing mud & LCM. Bit #1  
EX047 12-1/4" J-4 in @ 30', made  
160' in 7-1/4 hrs. Wt 8.7, V 58.  
Dev 1/2° @ 190'. DWC \$14,760  
CWC \$34,280  
7-5-81 407' drlg dakota. Wt 8.6, V 37,  
pH 7.5. Bit #1 made 377' in  
23-1/4 hrs. DWC \$14,540  
CWC \$48,800  
7-6-81 686' drlg dakota. Wt 9, V 42.  
RPM 65. Work load 50,000. Bit #1  
made 421' in 26 hrs. Bit #2  
HP898 OSCIGJ made 235' in 17-1/2 hrs  
Dwv 1° @ 420', 1-1/2° @ 636'.  
DWC \$12,050 CWC \$60,850

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-7-81 921' drlg entrada. Wt 8.9, V 36,  
pH 7. Made 234' in 24 hrs. Bit  
#4 F-2. 12-1/4, made 23'. Dev  
3° @ 729', 2-3/4° @ 898'.  
DWC \$20,350 CWC \$81,200

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-8-81 1585' drlg Navajo. Wt 9, V 36,  
pH 9.5, WL 7.5. Made 664' in  
24 hrs. Drld sd w/6 units BGG.  
DWC \$9,138 CWC \$90,338

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-9-81 1975' drlg sdstone. Wt 9.2,  
V 36, pH 7.5. Made 390' in 21  
hrs.  
DWC \$9,443  
CWC \$99,781

DRILLING REPORT

**RECEIVED**  
JUL 13 1981

WELL NAME: COAL BED CANYON #1-9 DAY: 6 DIVISION OF 1975  
OIL, GAS & MINING  
 DATE: July 9, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 390'  
 FORMATION: Wingate Sandstone  
 WT. ON BIT: 40-45,000# HOOK LOAD: \_\_\_\_\_ RPM: 60  
 BIT NO: 4 SER. NO: Smith BJ9694 SIZE: 12 1/4 TYPE: F-2 JETS: 3/14's  
 DEPTH IN: 898' DEPTH OUT: \_\_\_\_\_ PROGRESS: 1077'/30.5'/hr  
 HOURS: 35 1/4 DEVIATION: \_\_\_\_\_  
 MUD TYPE: Fresh water gel WT: 9.2 VIS: 36 pH: 7.5 WL: ---  
 TIME BREAKDOWN: DRILLING: 20 1/2 CIRCULATING: 3 1/4  
 REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
 TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: Lub Rig: 1/4  
 DAILY COST: \$9443 CUM COST: \$99,883

ENGINEERING REPORT: Mud: F.C. 1/32. Solids 3%. Sand: trace. LCM: 10%.  
 Ordered four more joints casing; will have 2046' 9 5/8" csg on location by  
 10 am.

GEOLOGIC REPORT: Circulate samples @ 1990' @ 8:00.

Lithology: 1720-1980 Sandstone, light orange to reddish brown, very fine to fine grained, well sorted, slightly calcareous; Wingate Sandstone.  
 1980-1990 Sandstone, as above, becoming increasingly silty; trace shale, dark red; possibly (?) Chinle.

Background gas: average 4-5 units.

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-2-81

NEW LOCATION: 600' FNL 600' FEL of Se  
9, T35S R26E, San Juan Co., Utah.  
Bayless Drilg Co., Contractor, Proposed  
TD 5800'. RURT.

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date 7-3-81  
Proposed TD 5,800'

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DIVISION OF  
OIL, GAS & MINING

7-5-81

Spud 7:30 PM, 7-3-81. 30' RURT.  
MI rat hole rig. Drld 20" hole  
to 30' & set 16" conductor. Cmtd  
@ 9:30 PM, 7-2-81. MIRT. SDFN.  
DWC \$19,570 CWC \$19,570  
190' mixing mud & LCM. Bit #1  
EX047 12-1/4" J-4 in @ 30', made  
160' in 7-1/4 hrs. Wt 8.7, V 58.  
Dev 1/2° @ 190'. DWC \$14,760  
CWC \$34,280

7-6-81

407' drlg dakota. Wt 8.6, V 37,  
pH 7.5. Bit #1 made 377' in  
23-1/4 hrs. DWC \$14,540  
CWC \$48,800  
686' drlg dakota. Wt 9, V 42.  
RPM 65. Work load 50,000. Bit #1  
made 421' in 26 hrs. Bit #2  
HP898 OSCIGJ made 235' in 17-1/2 hrs  
Dwv 1° @ 420', 1-1/2° @ 636'.  
DWC \$12,050 CWC \$60,850

Coal Bed Canyon #1-9  
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San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-7-81

921' drlg entrada. Wt 8.9, V 36,  
pH 7. Made 234' in 24 hrs. Bit  
#4 F-2, 12-1/4, made 23'. Dev  
3° @ 729', 2-3/4° @ 898'.  
DWC \$20,350 CWC \$81,200

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San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
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Spud Date  
Proposed TD 5,800'

7-8-81

1585' drlg Navajo. Wt 9, V 36,  
pH 9.5, WL 7.5. Made 664' in  
24 hrs. Drld sd w/6 units BGG.  
DWC \$9,138 CWC \$90,338

Coal Bed Canyon #1-9  
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San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-9-81

1975' drlg sdstone. Wt 9.2,  
V 36, pH 7.5. Made 390' in 21  
hrs.  
DWC \$9,443  
CWC \$99,781

Coal Bed Canyon #1-9

7-10-81

2050' Running 9-5/8" csg. Wt 9.3

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

7-2-81

NEW LOCATION: 600' FNL 600' FEL of Se  
9, T35S R26E, San Juan Co., Utah.  
Bayless Drlg Co., Contractor, Proposed  
TD 5800'. RURT.

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DIVISION OF  
OIL, GAS & MINING

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date 7-3-81  
Proposed TD 5,800'

7-3-81

Spud 7:30 PM, 7-3-81. 30' RURT.  
MI rat hole rig. Drld 20" hole  
to 30' & set 16" conductor. Cmtd  
@ 9:30 PM, 7-2-81. MIRT. SDFN.  
DWC \$19,570 CWC \$19,570

7-4-81

190' mixing mud & LCM. Bit #1  
EX047 12-1/4" J-4 in @ 30', made  
160' in 7-1/4 hrs. Wt 8.7, V 58.  
Dev 1/2° @ 190'. DWC \$14,760  
CWC \$34,280

7-5-81

407' drlg dakota. Wt 8.6, V 37,  
pH 7.5. Bit #1 made 377' in  
23-1/4 hrs. DWC \$14,540  
CWC \$48,800

7-6-81

686' drlg dakota. Wt 9, V 42.  
RPM 65. Work load 50,000. Bit #1  
made 421' in 26 hrs. Bit #2  
HP898 OSCIGJ made 235' in 17-1/2 hrs  
Dwv 1° @ 420', 1-1/2° @ 636'.  
DWC \$12,050 CWC \$60,850

Coal Bed Canyon #1-9  
Tipperary Oil & Gas Corp., Oper.  
San Juan County, Texas  
Coal Bed Canyon Prospect  
Tipperary Oil & Gas 25%  
Tipperary '81 LTD 25%  
Spud Date  
Proposed TD 5,800'

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921' drlg entrada. Wt 8.9, V 36,  
pH 7. Made 234' in 24 hrs. Bit  
#4 F-2, 12-1/4, made 23'. Dev  
3° @ 729', 2-3/4° @ 898'.  
DWC \$20,350 CWC \$81,200

TIPPERARY OIL AND GAS CORP.  
1675 BROADWAY SUITE 2530  
DENVER, COLO. 80202

DRILLING PROGNOSIS

NAME: Coal Bed Canyon #1-9

LOCATION: 600' FNL 600' FEL Sec 9T35S, R26E San Juan County, Utah

PROPOSED DEPTH: 5800' Elev. 6699'

CONTRACTOR: Bayless Drilling Co. Farmington N.M. 505-327-3513 Rig #5

CEMENTING: Dowell Cortez Colo. 303-565-7561

MUD LOGGE: Rocky Mountain Geo. Engineering 303-243-3044

LOGGING: Dresser Atlas, Farmington N.M. 505-325-5068

MUD: American Mud. Farmington N.M. ( John Hunter 505-327-4981 )

( Jerry Follett )

DIRECTIONS TO LOCATION: 8 miles west on county line road-H. When reach State Line go .2 miles turn left on location road. Go 1 mile into location.

COMPANY PERSONNEL: Mike Farrerns (Res.) 303-973-8307 (office) 303-573-5511  
Ben Gould (Res.) 915-683-9105 (office) 915-684-7151  
Bob Nordeck (Res.) 303-772-9191 (office) 303-573-5511

CONSULTING ENGINEER:

CONSULTING GEOLOGIST: C. M. Krivanek 505/327-3978

PROGRAM:

- 1.) Drill 12½" hole to 1900'. Run 9-5/8" Csg w/float shoe and centralizers.
- 2.) WOC 12 hrs. Test 9-5/8" csg. BOP's to 500 # for 30 min. Log checks in daily drill reports.
- 3.) Drill 8½" hole to 5800' mud. Norify Mike Farrerns when TD is reached.
- 4.) Log as required under conditions specified at that time.
- 5 ) Run 5½ 17#K-55 and cement as required.

<u>FORMATION TOPS:</u>	<u>DEPTH</u>	<u>SUBSEA:</u>
ENTRADA	800	+5900
NAVAJO	975	+5725

DRILLING PROGNOSIS  
PAGE TWO

NOTES:

- 1.) Drilling time recorder to be in operation from surface to TD.
- 2.) Catch samples 30' from surface to 1900' and 10' samples to TD.
- 3.) Strap pipe prior to logging.
- 4.) Call drilling report to Midland office (915-684-7151- Marsha) after 8:00 a.m. daily except Sunday.

DRILLING REPORT

*Jippen*

WELL NAME: COAL BED CANYON #1-9 DAY: 16 DEPTH: 4119  
 DATE: July 19, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 275'  
 FORMATION: Cutler  
 WT. ON BIT: 15-20,000 HOOK LOAD: 86,000 RPM: 90-100  
 BIT NO: 6 SER. NO: \_\_\_\_\_ SIZE: F-3 TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: 2908 DEPTH OUT: \_\_\_\_\_ PROGRESS: 1211  
 HOURS: 58½ DEVIATION: 6 3/4° @ 3951; 8° @ 4075.  
 MUD TYPE: \_\_\_\_\_ WT: 8.9 VIS: 32 pH: 9.0 WL: 20  
 TIME BREAKDOWN: DRILLING: 20 CIRCULATING: ½  
 REPAIRS: 1¼ SURVEY: 2¼  
 TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$9,526 CUM COST: \$189,941

ENGINEERING REPORT: PV 7. UP 10. Gels 4/8. Solids 4%. Drilling break: 4022-4025

GEOLOGIC REPORT:

DRILLING REPORT

*Jipperary*

WELL NAME: COAL BED CANYON #1-9 DAY: 15 DEPTH: 3844  
DATE: July 18, 1981 PRESENT OPERATION: Drilling  
PROGRESS LAST 24 HOURS: 480'  
FORMATION: Cutler  
WT. ON BIT: 12,000 HOOK LOAD: 83,000 RPM: 95  
BIT NO: 6 SER. NO: \_\_\_\_\_ SIZE: 8.3/4 TYPE: F-3 JETS: 11-12-13  
DEPTH IN: 2908 DEPTH OUT: \_\_\_\_\_ PROGRESS: 936  
HOURS: 38½ DEVIATION: 6° @ 3675; 6½° @ 3766; 7° @ 3828  
MUD TYPE: \_\_\_\_\_ WT: 8.8 VIS: 35 pH: 8.5 WL: 18  
TIME BREAKDOWN: DRILLING: 20 3/4 CIRCULATING: 1½  
REPAIRS: ¼ SURVEY: 1½  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
DAILY COST: \$9,370 CUM COST: \$180,415

ENGINEERING REPORT: PV 12. YP 12. Gels 4/8. Solids 3%.

GEOLOGIC REPORT:

DRILLING REPORT

*Supperary*

WELL NAME: COAL BED CANYON #1-9 DAY: 7 DEPTH: 2050  
 DATE: July 10, 1981 PRESENT OPERATION: Running 9 5/8" casing  
 PROGRESS LAST 24 HOURS: 75'  
 FORMATION: Chinle  
 WT. ON BIT: 40-45,000# HOOK LOAD: 65,000 RPM: 60  
 BIT NO: 4 SER. NO: DJ9694 SIZE: 12 1/4 TYPE: F2 JETS: 14-14-14  
 DEPTH IN: 898 DEPTH OUT: 2050 PROGRESS: 1152  
 HOURS: 54 1/2 DEVIATION: Misrun @ 2050  
 MUD TYPE: \_\_\_\_\_ WT: 9.3 VIS: 47 pH: 7.5 WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: 9 3/4 CIRCULATING: 9 1/2  
 REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
 TRIPPING: 1 1/2 MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: Running casing: 3; lube rig: 1/4.  
 DAILY COST: \$10,772 CUM COST: \$110,655

ENGINEERING REPORT: FC 1/32. Solids 3%. Sand trace. LCM 10%. Bit #4 in good shape; averaged 21.1 feet per hour.

Note: Bad weather, heavy rain, road impassable, could not get in or out. Cement truck got stuck off road; cat pulled it out. Road open this am. Got casing to bottom.

GEOLOGIC REPORT: Sampletop: Chinle 1935 (+4773)  
 Lithology: 1990-2050 Siltstone, dark reddish brown to orange brown, interbedded with red brown shale.  
 Background gas: 4-5 units

**RECEIVED**

JUL 16 1981

DIVISION OF  
OIL, GAS & MINING

DRILLING REPORT

*Inventory*

WELL NAME: COAL BED CANYON #1-9 DAY: 11 DEPTH: 2053  
 DATE: July 14, 1981 PRESENT OPERATION: \_\_\_\_\_  
 PROGRESS LAST 24 HOURS: 0  
 FORMATION: Chinle  
 WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
 BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
 HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
 MUD TYPE: \_\_\_\_\_ WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
 REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
 TRIPPING: 2 3/4 MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ \*\* OTHER: Running cmt: 4 3/4  
 DAILY COST: \$8,435 CUM COST: \$163,484

\*\*  
 WO Cmt: 11 1/2 Check tools: 1  
 WO Dowell: 4

ENGINEERING REPORT:

Last 24 hours: WO Dowell. Set retainer. Rig up to circulate. Couldn't get cement retainer to hold. TOOH. Run full bore packer at 1627. Set packer. Cement with Dowell. Shut in pressure 600# on drill pipe, 550# on casing. WO cement. Release packer and TOOH. Dresser Atlas should be at well site this morning to run temperature survey on cement.

GEOLOGIC REPORT:

**RECEIVED**

JUL 16 1981

DIVISION OF  
 OIL, GAS & MINING

DRILLING REPORT

*Supperary*

WELL NAME: COAL BED CANYON #1-9 DAY: 10 DEPTH: 2053  
 DATE: July 13, 1981 PRESENT OPERATION: WO Dowell  
 PROGRESS LAST 24 HOURS: 0  
 FORMATION: Chinle  
 WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
 BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
 HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
 MUD TYPE: H<sub>2</sub>O WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
 WO TOOLS: 15½ REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
 PU, LD TOOLS: 2 TRIPPING: 5 MIXING MUD: \_\_\_\_\_  
 WO DOWELL: 3/4 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$8435 CUM COST: \$155,049

ENGINEERING REPORT: WO Baker Tools, PU and run Baker full bore packer. Set packer at 2028; pressure casing to 800#; pump 100 barrels H<sub>2</sub>O down drill pipe, rate 7½ BPM, maximum pressure 1250#; pressure dropped to 550# while pumping. Bled off pressure; open pipe rams; pump 50 barrels H<sub>2</sub>O down drill pipe. Check for communication; none. Release packer; TOH, Called Dowell; ordered cement. PU and run Baker cement retainer to 2022'.

GEOLOGIC REPORT:

DRILLING REPORT

*Jipperony*

WELL NAME: COAL BED CANYON #1-9 DAY: 9 DEPTH: 2053  
 DATE: July 12, 1981 PRESENT OPERATION: WO tools  
 PROGRESS LAST 24 HOURS: 3'  
 FORMATION: Chinle  
 WT. ON BIT: 20-60,000 HOOK LOAD: \_\_\_\_\_ RPM: 40-80  
 BIT NO: 5 SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: 0 DEPTH OUT: 2053 PROGRESS: 2053  
 HOURS: 16½ DEVIATION: \_\_\_\_\_  
 MUD TYPE: Water WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: 9 3/4 CIRCULATING: 4 3/4  
 Lube rig: ½ REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
 Press tst: 1 TRIPPING: 1½ MIXING MUD: \_\_\_\_\_  
 WO tools: 7 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$9910 CUM COST: \$146,614

ENGINEERING REPORT: Drill cement. Found rubber plug at 2005 in cement guide shoe. No cement; called Dowell. Cleaned tanks; displaced hole w/fresh water; pressure test wellhead and casing to 2000#. WO Dowell personnel; witnessed drilling cement guide shoe; attempt to circulate around casing; pressure to 1500#. Dowell agreed to pay for cement job; agreed to pay for any obligations to return to drilling including rig time, perforators, and tool company, water haulers and any other necessary obligations. In return, we

GEOLOGIC REPORT: agreed to use Dowell for squeeze job. TOH with bit  
NONE #5. WO tools.

DRILLING REPORT

*Supperary*

WELL NAME: COAL BED CANYON #1-9 DAY: 8 DEPTH: 2050'  
 DATE: July 11, 1981 PRESENT OPERATION: Drilling cement  
 PROGRESS LAST 24 HOURS: 545'  
 FORMATION: Chinle  
 WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
 BIT NO: 5 SER. NO: BL8025 SIZE: 8 3/4 TYPE: F2 JETS: 11 11 --  
 DEPTH IN: 0 DEPTH OUT: 545 PROGRESS: \_\_\_\_\_  
 HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
 MUD TYPE: Water WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: 7 CIRCULATING: 3 3/4  
WOC: 7 1/2 REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
NU BOP & tst: 2 1/2 TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: Run csg & cmt: 3 1/2  
 DAILY COST: \$26,049 CUM COST: \$136,704

ENGINEERING REPORT: Circulate casing. WO Dowell. RU Dowell. Circulate and cement. Lost circulation while pumping cement. Bridge off. Pressured to 1500#. Could not move pipe; 45 bbl cement behind pipe; 155 bbl cement in pipe; run 1" pump 100 sacks cement at surface. RD Dowell; call welder, cut off casing. NU BOP; test BOP to 500# 30 minutes. Drill cement in 9 5/8" casing.

GEOLOGIC REPORT: 2050' Siltstone, light red brown, sandy in part, trace shale.

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DIVISION OF  
OIL, GAS & MINING

DRILLING REPORT

*Supperary*  
JUL 20 1981  
DIVISION OF OIL, GAS & MINING

WELL NAME: COAL BED CANYON #1-9 DEPTH: 2908  
DATE: July 16, 1981 PRESENT OPERATION: DST #1  
PROGRESS LAST 24 HOURS: 337'  
FORMATION: \_\_\_\_\_  
WT. ON BIT: 40,000 HOOK LOAD: 78,000 RPM: 60  
BIT NO: 5R & 6 SER. NO: (6) BL9160 SIZE: \_\_\_\_\_ TYPE: (6) F3 JETS: (6) 11-12-13  
DEPTH IN: 6: 2908; 5: 1855 DEPTH OUT: 5: 2908 PROGRESS: 5: 1053  
HOURS: 3 1/4 DEVIATION: MISRUN at 2908  
MUD TYPE: \_\_\_\_\_ WT: 8.6 VIS: 36 pH: \_\_\_\_\_ WL: 14  
TIME BREAKDOWN: DRILLING: 6 3/4 CIRCULATING: 4 1/4  
REPAIRS: 1/2, 1/4 SURVEY: 1/4  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: DST: 4 3/4  
DAILY COST: \$12,813 CUM COST: \$184,982

ENGINEERING REPORT: Drilling break: 2856-2870  
1 1/2 minutes per foot before  
1/2 minute per foot during  
1 minute per foot after  
Total gas: 12 units before break  
90 units during break  
15 units after break

GEOLOGIC REPORT:

DRILLING REPORT

*Jipperary*

WELL NAME: COAL BED CANYON #1-9 DAY: 12 DEPTH: 2571  
 DATE: July 15, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 518'  
 FORMATION: Chinle  
 WT. ON BIT: 40,000 HOOK LOAD: \_\_\_\_\_ RPM: 65  
 BIT NO: 5R SER. NO: BL8025 SIZE: 8 3/4 TYPE: F2 JETS: 11-11-13  
 DEPTH IN: 1855 DEPTH OUT: \_\_\_\_\_ PROGRESS: 518  
 HOURS: 27 1/2 DEVIATION: 1° @ 2417  
 MUD TYPE: Water WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: 14 3/4 CIRCULATING: \_\_\_\_\_  
 REPAIRS: \_\_\_\_\_ SURVEY: 3/4  
 TRIPPING: 1/2 MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: Run temperature survey: 7  
 DAILY COST: \$8,685 CUM COST: \$172,169

ENGINEERING REPORT: Ran temperature survey: 50' - 68°; 1000' - 74°; 1600' - 77°; 1700' - 78°; 1800' - 79.5°. 1800' test BOP 1000 psi, 30 min, OK. Tag cement at 1855. Drill cement and pressure test 1000 psi, OK. Drill ahead. BHA bit sub 20, 6 1/2 drill collar.

GEOLOGIC REPORT: PTD 2670. Drilling average 1 MPF.

Siltstone, med to dark red brown, pale to light green, calcareous, soft, platy, blocky, sandy in part, shale dark red to brown, soft to firm, fissile, slightly calcareous.

Didn't see sandy Shinarump.

Thinks we're in Moenkopi: sand in 2660' sample. Medium to coarse grained, white to clear, light gray, pale red to brown. Grains, no clusters.

Poor sorting, poor cementing, silty. Estimated sample top 2630-60.

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JUL 23 1981

DRILLING REPORT

*Supperary*  
DIVISION OF  
OIL, GAS & MINING

WELL NAME: COAL BED CANYON #1-9 DAY: 18 DEPTH: 4624  
 DATE: July 21, 1981 PRESENT OPERATION: Picking up DST tools  
 PROGRESS LAST 24 HOURS: 265'  
 FORMATION: Hermosa  
 WT. ON BIT: 25-30,000 HOOK LOAD: \_\_\_\_\_ RPM: 65-70  
 BIT NO: 7 SER. NO: BR7188 SIZE: 8 3/4 TYPE Smith F3 JETS: 11, 11, -  
 DEPTH IN: 4292 DEPTH OUT: 4624 PROGRESS: 332 (19.2'/hr)  
 HOURS: 17 1/4 DEVIATION: 8° at 4410; 8° at 4502'.  
 MUD TYPE: \_\_\_\_\_ WT: 9.0 VIS: 36 pH: 10 WL: 14  
 TIME BREAKDOWN: DRILLING: 14 1/4 CIRCULATING: 1 3/4  
                   REPAIRS: 1/4 SURVEY: 1 3/4  
                   TRIPPING: 3 MIXING MUD: \_\_\_\_\_  
                   LOGGING: \_\_\_\_\_ OTHER: Circulate and wait on DST tools: 3  
 DAILY COST: \$10,800 CUM COST: \$215,163

ENGINEERING REPORT: Mud @ 10 pm: Wt 9, vis 36, PV 12, YP 9, Gels 4/10,  
 WL 14, pH 10, FC 2/32, Solids 4%, sand: trace.

GEOLOGIC REPORT: Prepare to DST #2 (4555-4624); Upper Hermosa Formation.

Drill Breaks: 4556-63    3-1.5-3 min/ft    Total gas 2-6-2 units; 348 units C<sub>1</sub>; no sample show.  
 4578-92    3-2-3 min/ft    Total gas 2-30-4 units; C<sub>1</sub> 1740 units; C<sub>2</sub> 250 units; C<sub>3</sub> 83 units; C<sub>4</sub> trace; trace light yellow fluorescence.  
 4596-4604    3-2-3 min/ft    Total gas 4-8-4 units; C<sub>1</sub> 783 units; C<sub>2</sub> 14 units; C<sub>3</sub> 42 units; C<sub>4</sub> 102 units; no sample shows.

Lithology: Sandstone, white to light tan; unconsolidated quartz grains; some clay cement; very fine to fine grained; poor to fair porosity; trace light yellow fluorescence.

Tentative sample top: Hermosa Formation    4350'

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Tipperary Oil & Gas Collie Haggler 303-677-2234

WELL NAME: Standard Energy 1-9 Coal Bed Canyon

SECTION NE 9 TOWNSHIP 35S RANGE 26E COUNTY San Juan

VERBAL APPROVAL GIVEN TO PLUG AND ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 5704'

CASING PROGRAM:

- 20" @ 30' cement to surface
- 9 5/8" @ 2050' cement to surface
- 8 3/4" openhole TD

FORMATION TOPS:

Entrada-	914'
Navajo-	1082'
Chinle-	1978'
Shinarump-	2600'
Cutler-	2850'
Honiker Trail-	4746'
U. Ismay-	5236'
L. Ismay-	?
U. Desert Creek-	5454'
L. Desert Creek-	5496'
Salt-TD-	5571'

PLUGS SET AS FOLLOWS:

- 1) 5704-5200'
- 2) 2900-2800'
- 3) 2500-2000'
- 4) 35'-surface

DST  
1) 2856-2870' (SSO)

No core, No water, No perfs.

The interval between plugs shall be filled with a 9.2#, 42 vis. fresh water gel based mud; erect regulation dryhole marker; clean up, grade and restore the location; and notify this Division when the location is prepared for inspection.

DATE 7-26-81

SIGNED MTM

cc: Tipperary Oil & Gas



DRILLING REPORT

*Supperary*  
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4752  
DIVISION OF  
OIL, GAS & MINING

WELL NAME: COAL BED CANYON #1-9 DAY: 19 DEPTH: 4752

DATE: July 22, 1981 PRESENT OPERATION: Drilling

PROGRESS LAST 24 HOURS: 133'

FORMATION: Hermosa

WT. ON BIT: 20,000 HOOK LOAD: 92,000 RPM: 100

BIT NO: 7 rerun SER. NO: BR7188 SIZE: 8 3/4 TYPE: Smith F3 JETS: 11/11/-

DEPTH IN: 4292 DEPTH OUT: \_\_\_\_\_ PROGRESS: 465 (15.6'/hr)

HOURS: 27 1/4 DEVIATION: 8 1/2° at 4747

MUD TYPE: Fresh water gel WT: 9.0 VIS: 38 pH: 10.5 WL: 12.0

TIME BREAKDOWN: DRILLING: 8 1/2 CIRCULATING: 1/4

REPAIRS: \_\_\_\_\_ SURVEY: 3/4

TRIPPING: 8 1/4 MIXING MUD: \_\_\_\_\_

LOGGING: \_\_\_\_\_ OTHER: DST: 6 1/4

DAILY COST: \$12,924 CUM COST: \$228,087

ENGINEERING REPORT: Ran DST #2 (4557-4624) PV 12. YP 9. Gels 4/10.  
FC 2/32. Solids 4%. Sand: trace.

GEOLOGIC REPORT: Lithology: 4625-4760 Interbedded siltstone, sandstone and shale.  
4760-4770 Limestone, tan, very finely crystalline, dense.

Background gas: none.

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JUL 28 1981

D

DRILLING REPORT

DIVISION OF  
OIL, GAS & MINING

Tipperary oil + Gas  
 WELL NAME: COAL BED CANYON #1-9 DAY: 22 DEPTH: 5532  
 DATE: July 25, 1981 PRESENT OPERATION: Drilling  
 PROGRESS LAST 24 HOURS: 198'  
 FORMATION: \_\_\_\_\_  
 WT. ON BIT: 40,000 HOOK LOAD: \_\_\_\_\_ RPM: 65  
 BIT NO: 7R SER. NO: \_\_\_\_\_ SIZE: 8 3/4 TYPE: F3 JETS: \_\_\_\_\_  
 DEPTH IN: 4292 DEPTH OUT: \_\_\_\_\_ PROGRESS: 1240  
 HOURS: 81 1/2 DEVIATION: 3 1/4° at 5364  
 MUD TYPE: \_\_\_\_\_ WT: 9.0 VIS: 57 pH: 8.5 WL: 16.0  
 TIME BREAKDOWN: DRILLING: 12 3/4 CIRCULATING: 6  
 REPAIRS: 1 SURVEY: 3/4  
 TRIPPING: 3 1/2 MIXING MUD: \_\_\_\_\_  
 LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
 DAILY COST: \$11,355 CUM COST: \$260,748

ENGINEERING REPORT: L.C. 325 barrels mud.

GEOLOGIC REPORT:

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OIL, GAS & MINING

DRILLING REPORT

WELL NAME: COAL BED CANYON #1-9 DAY: 25 DEPTH: \_\_\_\_\_<sup>2</sup>  
DATE: July 28, 1981 PRESENT OPERATION: \_\_\_\_\_  
PROGRESS LAST 24 HOURS: \_\_\_\_\_  
FORMATION: \_\_\_\_\_  
WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
MUD TYPE: \_\_\_\_\_ WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
REPAIRS: \_\_\_\_\_ SURVEY: \_\_\_\_\_  
TRIPPING: \_\_\_\_\_ MIXING MUD: \_\_\_\_\_  
LOGGING: \_\_\_\_\_ OTHER: \_\_\_\_\_  
DAILY COST: \$13,050 CUM COST: \$310,115

ENGINEERING REPORT: All plugs set. Rig released at 2:00 pm, 7/27/81.

FINAL REPORT.

One 17' length of 9 5/8 cut off joint and a cut off joint of 20" conductor sent to Bayless yard.

GEOLOGIC REPORT:

DRILLING REPORT

Tipperary oil+Gas

WELL NAME: COAL BED CANYON #1-9 DAY: 24 DEPTH: 5704  
 DATE: July 27, 1981 PRESENT OPERATION: Plugging and abandoning.  
 PROGRESS LAST 24 HOURS: \_\_\_\_\_  
 FORMATION: \_\_\_\_\_  
 WT. ON BIT: \_\_\_\_\_ HOOK LOAD: \_\_\_\_\_ RPM: \_\_\_\_\_  
 BIT NO: \_\_\_\_\_ SER. NO: \_\_\_\_\_ SIZE: \_\_\_\_\_ TYPE: \_\_\_\_\_ JETS: \_\_\_\_\_  
 DEPTH IN: \_\_\_\_\_ DEPTH OUT: \_\_\_\_\_ PROGRESS: \_\_\_\_\_  
 HOURS: \_\_\_\_\_ DEVIATION: \_\_\_\_\_  
 MUD TYPE: \_\_\_\_\_ WT: \_\_\_\_\_ VIS: \_\_\_\_\_ pH: \_\_\_\_\_ WL: \_\_\_\_\_  
 TIME BREAKDOWN: DRILLING: \_\_\_\_\_ CIRCULATING: \_\_\_\_\_  
 REPAIRS: 1/4 SURVEY: \_\_\_\_\_  
 TRIPPING: 1 1/2 ~~XXXXXX~~ WOO: 15 1/4  
 LOGGING: 2 1/2 OTHER: W0 cmt: 4 Cmt: 1/2  
 DAILY COST: \$24,313 CUM COST: \$297,065

ENGINEERING REPORT: Received approval from Mike Minder in Utah to P & A.

Plugs set at: 5693-5200 184 sx  
 2900-2988 37 sx  
 2500-200 187 sx  
 35-0 17 sx

GEOLOGIC REPORT: Ran Schlumberger logs: DI-SFL; Comp. Density-Neutron;

BHC Sonic; Cyberlook. Driller TD 5705; Logger TD 5694.

LOG TOPS: Morrison 225 (+ 6484)  
 Summerville 1030 (+ 5679)  
 Entrada 1060 (+ 5649)  
 Carmel 1212 (+ 5497)  
 Navajo 1245 (+ 5464)  
 Wingate 1650 (+ 5059)  
 Chinle 1925 (+ 4784)  
 Shinarump 2600 (+ 4109)  
 Cutler 2678 (+ 4031)  
 Hermosa 4065 (+ 2644)  
 Ismay 5234 (+ 1475)  
 Desert Creek - Upper 5454 (+ 1255)  
 Lower 5494 (+ 1215)  
 Paradox Salt 5562 (+ 1147)

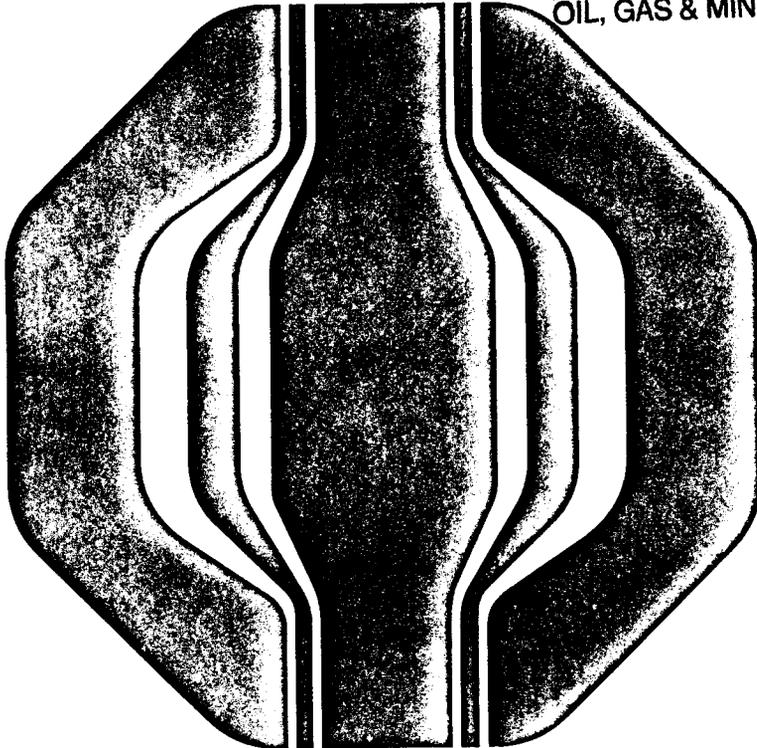
NO DST'S, NO CORES, NO  
 ZONES OF INTEREST IN  
 ISMAY OR DESERT CREEK.

*Plugged & abandoned*

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JUL 26 1981

DIVISION OF  
OIL, GAS & MINING



Operator  
Address  
Ripperary Oil & Gas Corporation  
1675 Broadway - Suite 2530  
Denver, CO. 80202

Well Name and No.  
Ticket No.

Coal Canyon #1-9  
34985

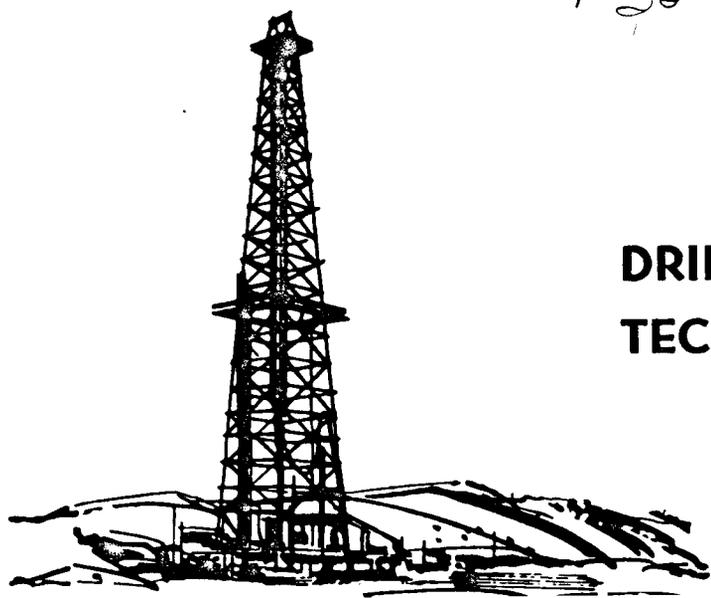
Date  
7-16-81

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**LYNES**

*T 35 R 26 S 9  
San Juan*

**DRILL STEM TEST  
TECHNICAL SERVICE REPORT**

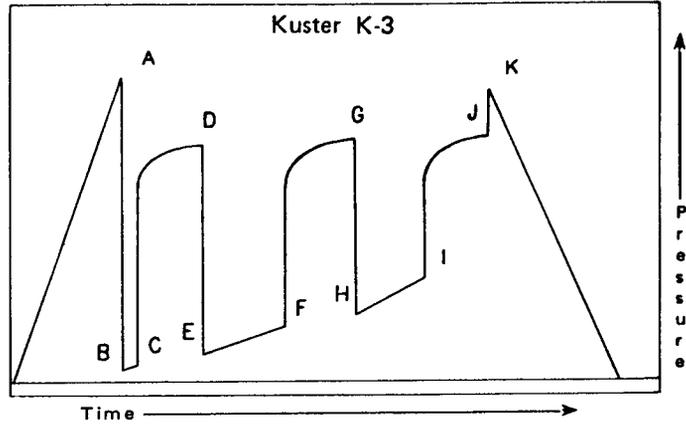
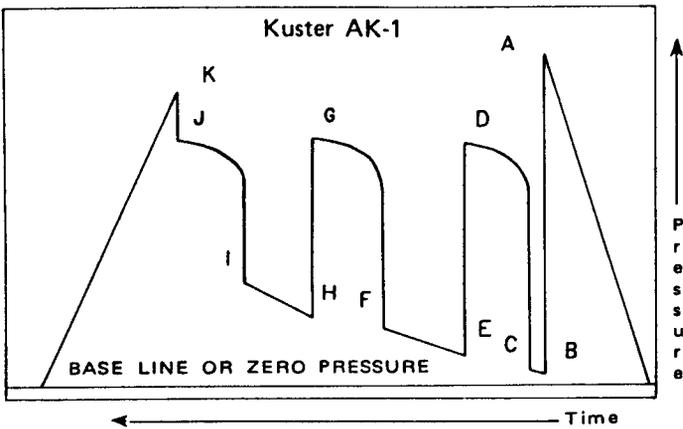


## GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

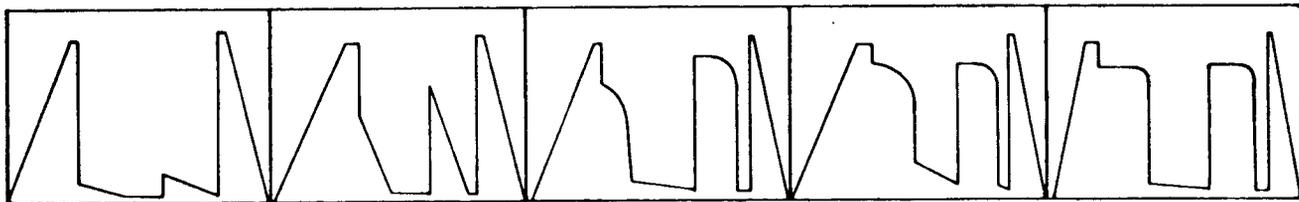
In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

AK-1 recorders. Read from right to left.

K-3 recorders. Read from left to right.



- A – Initial Hydrostatic
- B – First Initial Flow
- C – First Final Flow
- D – Initial Shut-in
- E – Second Initial Flow
- F – Second Final Flow
- G – Second Shut-in
- H – Third Initial Flow
- I – Third Final Flow
- J – Third Shut-in
- K – Final Hydrostatic



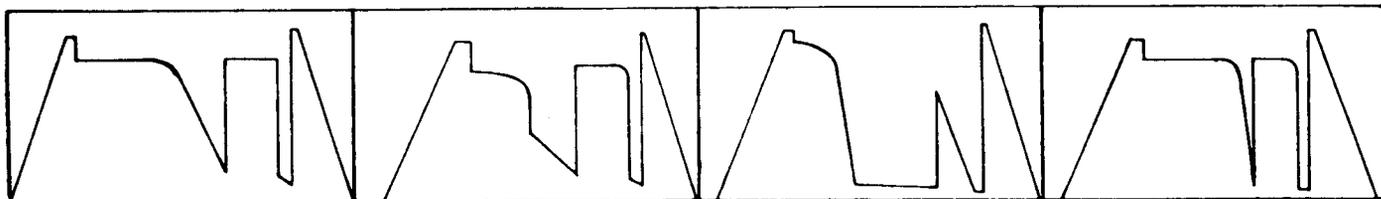
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.

Contractor Bayless Drlg. Co. Top Choke 1"  
 Rig No. 5 Bottom Choke 9/16"  
 Spot NE-NE Size Hole 8 3/4"  
 Sec. 9 Size Rat Hole --  
 Twp. 35 S Size & Wt. D. P. 4" 14.40  
 Rng. 26 E Size Wt. Pipe --  
 Field Wildcat I. D. of D. C. 2 1/4"  
 County San Juan Length of D. C. 590'  
 State Utah Total Depth 2910'  
 Elevation 6699' Ground Interval Tested 2851'-2910'  
 Formation Cutler Type of Test Bottom Hole  
Conventional

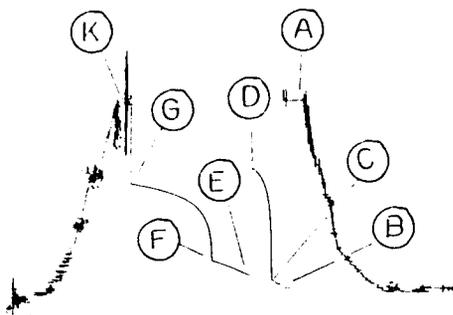
Flow No. 1 15 Min.  
 Shut-in No. 1 30 Min.  
 Flow No. 2 60 Min.  
 Shut-in No. 2 120 Min.  
 Flow No. 3 -- Min.  
 Shut-in No. 3 -- Min.  
 Bottom Hole Temp. 90°F  
 Mud Weight 8.4  
 Gravity --  
 Viscosity 36

Tool opened @ 2:56

**Inside Recorder**

PRD Make Kuster AK-1  
 No. 2559 Cap. 5050 @ 2857'

	Press	Corrected
Initial Hydrostatic	A	1247
Final Hydrostatic	K	1235
Initial Flow	B	47
Final Initial Flow	C	78
Initial Shut-in	D	802
Second Initial Flow	E	111
Second Final Flow	F	204
Second Shut-in	G	701
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist.: Rock Springs, WYO  
 Our Tester: Myron Whiting  
 Witnessed By: Callie Hagler

Did Well Flow - Gas NO Oil NO Water NO  
 RECOVERY IN PIPE: 350' Total Fluid  
90' Drilling Mud = .44 bbl.  
200' Muddy Water = .95 bbl.  
60' Water = .29 bbl.

Top Sample R.W.: .73 @ 76°F = 7700 ppm. Cl.  
 Middle Sample R.W.: .7 @ 75°F = 8000 ppm. Cl.  
 Bottom Sample R.W.: .38 @ 74°F = 16,000 ppm. Cl.

**Blow Description:**

1st Flow: Tool opened with a weak blow, increased to a 6" underwater blow at end of flow period. After shut-in blow died in 20 minutes.

2nd Flow: Tool opened with a weak blow, increased to a 4" underwater blow in 15 minutes, decreased to 2 1/2" at end of flow period. After shut-in blow died in 18 minutes.

Address: 1675 Broadway - Suite 2530  
 Denver, CO. 80202  
 Ticket No. 34985  
 Date 7-16-81  
 No. Final Copies 5

# LYNES, INC.

Tipperary Oil & Gas Corporation

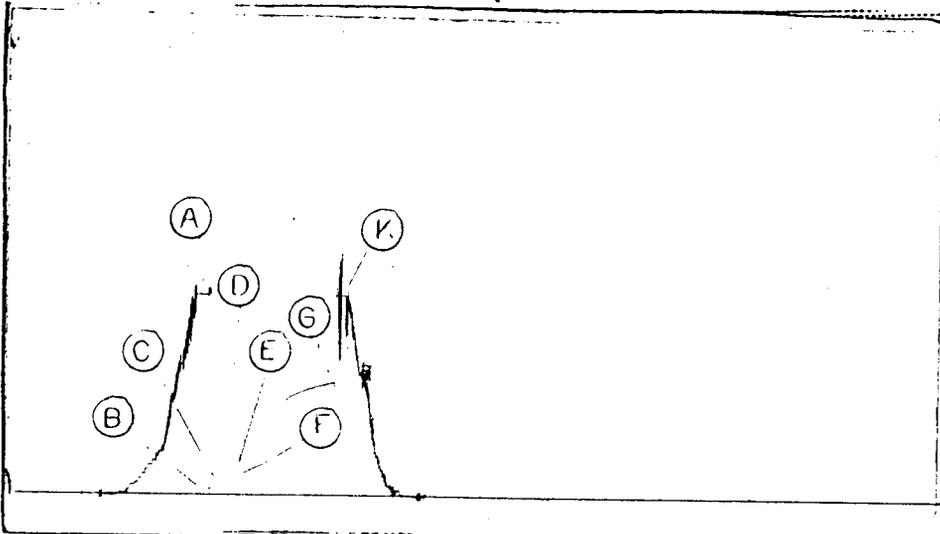
Coal Canyon #1-9

1

Operator

Well Name and No.

DST No.



**Inside Recorder**

PRD Make Kuster K-3  
 No. 13735 Cap. 2900 @ 2939'

	Press	Corrected
Initial Hydrostatic	A	1239
Final Hydrostatic	K	1229
Initial Flow	B	26
Final Initial Flow	C	73
Initial Shut-in	D	795
Second Initial Flow	E	90
Second Final Flow	F	200
Second Shut-in	G	690
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

PRD Make \_\_\_\_\_  
 No. \_\_\_\_\_ Cap. \_\_\_\_\_ @ \_\_\_\_\_

	Press	Corrected
Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	
Pressure Below Bottom Packer Bled To		

WELL NAME: COAL CANYON 1-9

DST NUMBER: 001

RECORDER NUMBER: 002559

INTERVAL TESTED: 2851FT TO 2910FT

RECORDER DEPTH: 2857.000FT

TOTAL FLOW TIME: 15.0MIN

FIRST SHUT IN PRESSURE (LIQUID)

TIME (MIN)	(T+PHI)	PRESSURE
PHI	/PHI	(PSI)
.0	.0000	78.0
1.0	16.0000	317.0
2.0	8.5000	442.0
3.0	6.0000	508.0
4.0	4.7500	554.0
5.0	4.0000	579.0
6.0	3.5000	603.0
7.0	3.1429	629.0
8.0	2.8750	647.0
9.0	2.6667	662.0
10.0	2.5000	675.0
12.0	2.2500	701.0
14.0	2.0714	718.0
16.0	1.9375	737.0
18.0	1.8333	749.0
20.0	1.7500	762.0
22.0	1.6818	772.0
24.0	1.6250	781.0
26.0	1.5769	789.0
28.0	1.5357	796.0
30.0	1.5000	802.0

The initial shut-in pressure build-up curve has been incremented and plotted, but an extrapolated shut-in pressure has not been made due to insufficient character of the build-up curve.

WELL NAME: COAL CANYON 1-9

DST NUMBER: 001

RECORDER NUMBER: 002559

INTERVAL TESTED: 2851FT TO 2910FT

RECORDER DEPTH: 2857.000FT

TOTAL FLOW TIME: 75.0MIN

SECOND SHUT IN PRESSURE (LIQUID)

TIME (MIN)	(T+PHI) /PHI	PRESSURE (PSI)
.0	.0000	204.0
1.0	76.0000	265.0
2.0	38.5000	333.0
3.0	26.0000	370.0
4.0	19.7500	394.0
5.0	16.0000	412.0
6.0	13.5000	429.0
7.0	11.7143	442.0
8.0	10.3750	454.0
9.0	9.3333	464.0
10.0	8.5000	473.0
12.0	7.2500	491.0
14.0	6.3571	505.0
16.0	5.6875	518.0
18.0	5.1667	529.0
20.0	4.7500	539.0
22.0	4.4091	548.0
24.0	4.1250	556.0
26.0	3.8846	564.0
28.0	3.6786	571.0
30.0	3.5000	576.0
40.0	2.8750	603.0
50.0	2.5000	622.0
60.0	2.2500	639.0
70.0	2.0714	653.0
80.0	1.9375	664.0 *
90.0	1.8333	675.0 *
100.0	1.7500	684.0 *
110.0	1.6818	693.0 *
120.0	1.6250	701.0 *

\* VALUES USED IN HORNER ANALYSIS

SLOPE: 481.88343 PSI/CYCLE

EXTRAPOLATED PRESSURE: 802.0 PSI

HORNER PLOT

TEST DATE: 07 16 81

WELL NAME: COAL CANYON 1-9  
LOCATION:  
DST-NO: 001 REC-NO: 002559 SHUT-IN: 1

EXTRAPOLATED PRESSURE:

SLOPE:

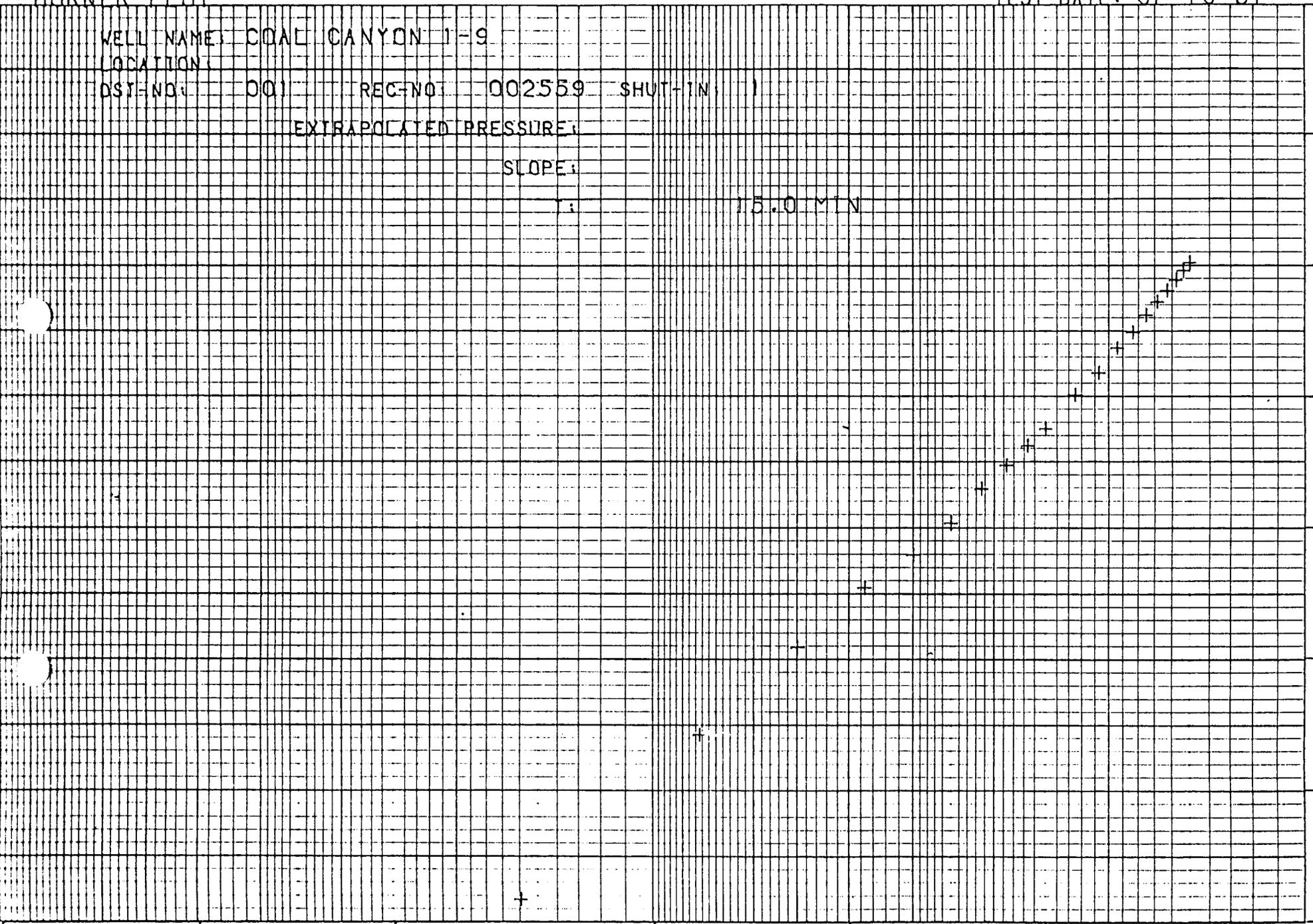
15.0 MIN

900  
800  
700  
600  
500  
400  
300  
PRESSURE PSI LIQUID

100 50 25 10 5 2.5  
TIME (T+ΔT) / ΔT

+

TIME (T+ΔT) / ΔT



HORNER PLOT

TEST DATE: 07 16 81

WELL NAME: COAL CANYON 1-9

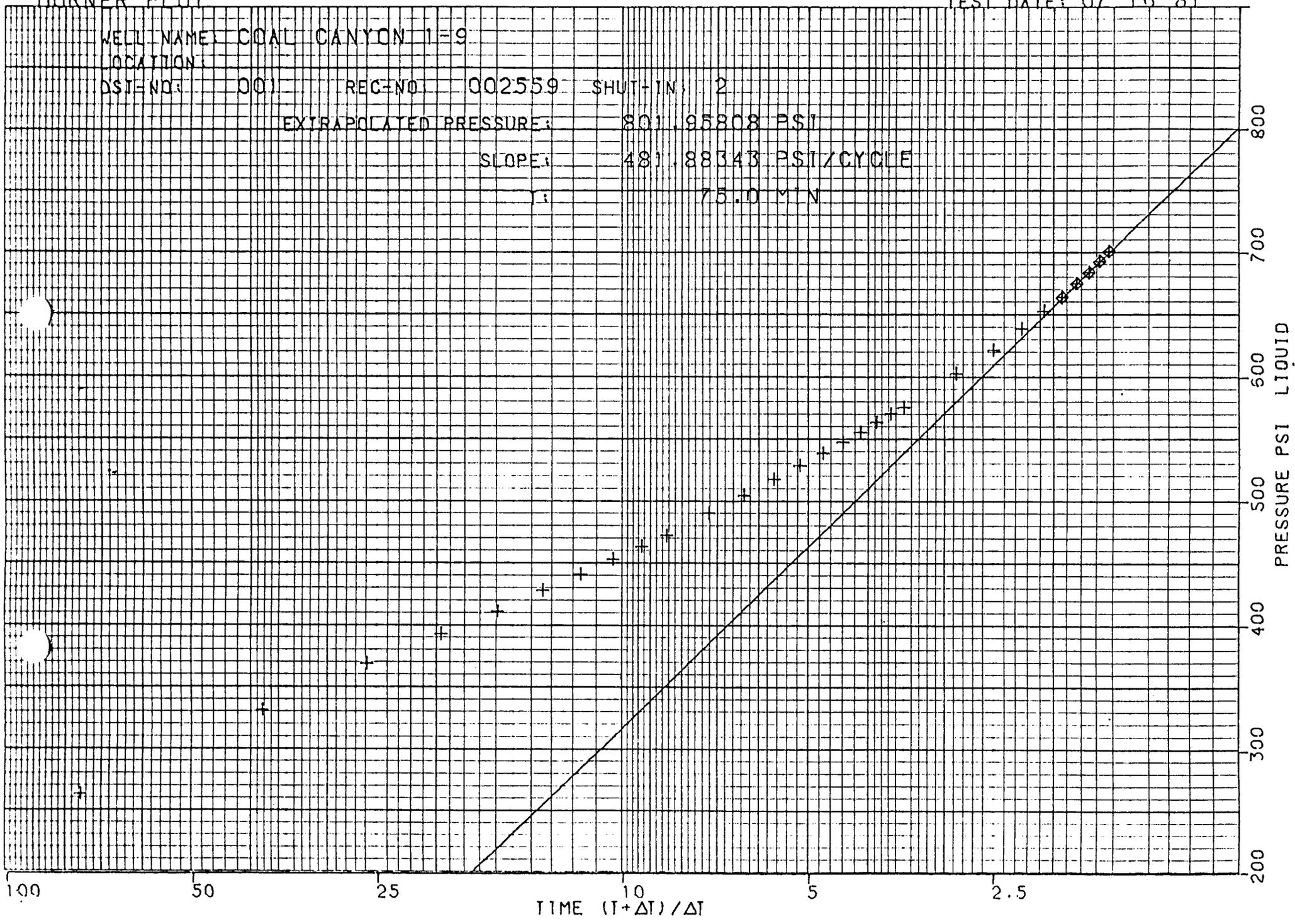
LOCATION:

DST-NO: 001 REC-NO: 002559 SHUT-IN: 2

EXTRAPOLATED PRESSURE: 801.95808 PSI

SLOPE: 481.88343 PSI/CYCLE

T: 75.0 MIN



# LYNES, INC.

## Sampler Report

Company Tipperary Oil & Gas Corporation Date 7-16-81  
Well Name & No. Coal Canyon #1-9 Ticket No. 34985  
County San Juan State Utah  
Test Interval 2851'-2910' DST No. 1

Total Volume of Sampler: 2150 cc.  
Total Volume of Sample: 2150 cc.  
Pressure in Sampler: 410 psig  
Oil: 2150 Water & Gas cut cc.  
Water: -- cc.  
Mud: NONE cc.  
Gas: -- cu. ft.  
Other: NONE

### Resistivity

Make Up Water R.W.: 2.7 @ 65°F of Chloride Content 2250 ppm.  
Mud Pit Sample R.W.: 1.2 @ 78°F of Chloride Content 4000 ppm.  
Gas/Oil Ratio \_\_\_\_\_ Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F

Where was sample drained On Location

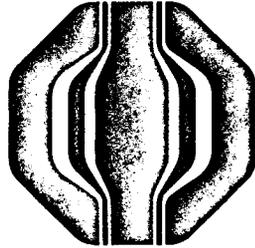
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# NOMENCLATURE (Definition of Symbols)

- Q = average production rate during test, bbls./day
- Q<sub>g</sub> = measured gas production rate during test, MCF/day
- k = permeability, md
- h = net pay thickness, ft. (when unknown, test interval is chosen)
- μ = fluid viscosity, centipoise
- Z = compressibility factor
- T<sub>r</sub> = reservoir temperature, ° Rankine
- m = slope of final SIP buildup plot, psig/cycle (psig<sup>2</sup>/cycle for gas)
- b = approximate radius of investigation, feet
- r<sub>w</sub> = wellbore radius, feet
- t<sub>o</sub> = total flowing time, minutes
- P<sub>o</sub> = Extrapolated maximum reservoir pressure, psig
- P<sub>f</sub> = final flowing pressure, psig
- P.I. = productivity index, bbls./day/psi
- P.I.<sub>t</sub> = theoretical productivity index with damage removed, bbl./day/psi
- D.R. = damage ratio
- E.D.R. = estimated damage ratio
- AOF = absolute open flow potential, MCF/D
- AOF<sub>t</sub> = theoretical absolute open flow if damage were removed
- Z = subsea depth
- W = water gradient based on salinity
- H<sub>w</sub> = potentiometric surface

INTERPRETATION CALCULATIONS (OIL/WATER)	
<b>AVERAGE PRODUCTION RATE DURING TEST</b> $Q = 1440 \left[ \frac{\text{drill collar capacity} + \text{recovery} + \text{drill pipe capacity} + \text{recovery}}{\text{initial flow time} + \text{final flow time}} \right]$ $= 1440 \left[ \frac{(\quad) + (\quad) + (\quad) + (\quad)}{(\quad) + (\quad)} \right]$ $= 1440 [0.0145 \text{ or } .0073] (\quad) \quad \text{Mud Expansion} = \frac{\quad}{\quad} \text{ ft.}$ $= \quad \text{ bbls./day} \quad \left( \begin{array}{l} \text{Drill Collar Conversion} \\ \text{Is Considered} \end{array} \right)$	
<b>FLUID PROPERTIES</b> <span style="float: right;">Estimated Bottom Hole Temperature °</span> API Gravity @ 60° F. .... ° Specific Gravity @ 60° F. .... Est. Viscosity ..... cp	
<b>TRANSMISSIBILITY</b> $\frac{kh}{\mu} = \frac{162.6 Q_o}{m} = \frac{162.6 (\quad)}{(\quad)} = \quad \text{ md-ft/cp}$	
<b>IN SITU CAPACITY</b> $kh = (\quad) (\quad) = \quad \text{ md-ft.}$	
<b>AVERAGE EFFECTIVE PERMEABILITY</b> <span style="float: right;">Estimated Pay Thickness Ft. Actual Pay Thickness Ft.</span> $k = \frac{\quad}{\quad} = \quad \text{ md.}$	
<b>PRODUCTIVITY INDEX</b> $PI = \frac{Q}{P_o - P_f} = \frac{(\quad)}{(\quad) - (\quad)} = \quad \text{ bbl./day/psi}$	
<b>DAMAGE RATIO</b> $D.R. = \frac{0.183 [P_o - P_f]}{m} = \frac{0.183 [(\quad) - (\quad)]}{(\quad)} = \quad$	
<b>PRODUCTIVITY INDEX WITH DAMAGE REMOVED</b> $P.I._t = P.I. \times D.R. = (\quad) (\quad) = \quad \text{ bbl./day/psi}$	
<b>APPROXIMATE RADIUS OF INVESTIGATION</b> $b = \sqrt{r_e^2} = \sqrt{(\quad) (\quad)} = \quad \text{ ft.}$	
<b>Drawdown Factor</b> = $\frac{I.S.I.P. - F.S.I.P.}{I.S.I.P.} \times 100 = \frac{(\quad) - (\quad)}{(\quad)} \times 100 = \quad \%$ <span style="font-size: small;">(4% to 5% is considered serious or substantial)</span>	
<b>Potentiometric Surface</b> = $H_w = Z + \frac{P_o}{W}$ $H_w = \quad + \frac{(\quad)}{(\quad)} = \quad \pm \quad \text{ ft.}$	

INTERPRETATION CALCULATIONS (GAS)	
<b>ESTIMATED GAS PROPERTIES</b> <span style="float: right;">R(T<sub>g</sub>) = ..... °</span> Gravity @ 60° F. .... Viscosity (Res.) ..... cp. <span style="float: right;">Estimated Bottom Hole Temperature °</span> <span style="float: right;">Compressibility Factor (Z) .....</span>	
<b>TRANSMISSIBILITY</b> <span style="float: right;">Measured D.S.T. Gas Rate = ..... mcf/d.</span> $\frac{kh}{\mu} = \frac{1637 Q_g Z T_r}{m} = \frac{1637 (\quad) (\quad) (\quad)}{(\quad)} = \quad \frac{\text{md-ft.}}{\text{cp.}}$	
<b>IN SITU CAPACITY</b> $kh = (\quad) (\quad) = \quad \text{ md-ft.}$	
<b>AVERAGE EFFECTIVE PERMEABILITY</b> <span style="float: right;">Estimated Pay Thickness Ft. Actual Pay Thickness Ft.</span> $k = \frac{\quad}{\quad} = \quad \text{ md.}$	
<b>APPROXIMATE RADIUS OF INVESTIGATION</b> $b = 0.02 \sqrt{k h P_o} = 0.02 \sqrt{(\quad) (\quad) (\quad)} = \quad \text{ ft.}$	
<b>ACTUAL CAPACITY</b> $kh = \frac{3270 Q_g \mu Z T_r \log(0.472 r_e)}{P_o^2 - P_f^2} = \frac{3270 (\quad) (\quad) (\quad) (\quad)}{(\quad) - (\quad)} = \quad \text{ md-ft.}$	
<b>ESTIMATED DAMAGE RATIO</b> $E.D.R. = \frac{(P_o^2 - P_f^2)}{m \log T_o + 2.65} \quad \text{ E.D.R.} = \quad$	
<b>ESTIMATED RANGE OF AOF POTENTIAL</b> $\text{Max. AOF} = \frac{Q_o P_o^2}{P_o^2 - P_f^2} = \frac{(\quad) (\quad)}{(\quad) - (\quad)} = \quad \text{ MCF/D}$ $\text{Min. AOF} = \frac{Q_o P_o}{\sqrt{P_o^2 - P_f^2}} = \frac{(\quad) (\quad)}{\sqrt{(\quad) - (\quad)}} = \quad \text{ MCF/D}$	
<b>ESTIMATED RANGE OF AOF POTENTIAL DAMAGE REMOVED</b> $\text{Max. AOF}_t = [\text{Max. AOF}] [D.R.] = (\quad) (\quad) = \quad \text{ MCF/D}$ $\text{Min. AOF}_t = [\text{Min. AOF}] [D.R.] = (\quad) (\quad) = \quad \text{ MCF/D}$	
<b>Drawdown Factor</b> = $\frac{ISIP - FSIP}{ISIP} \times 100 = \frac{(\quad) - (\quad)}{(\quad)} \times 100 = \quad \%$ <span style="font-size: small;">4% to 5% is considered serious or substantial</span>	
<b>Potentiometric Surface</b> = $H_w = Z + \frac{P_o}{W}$ $H_w = \quad + \frac{(\quad)}{(\quad)} = \quad \pm \quad \text{ ft.}$	



**LYNES**

Phone 713-790-9132

Box 12486

Houston, TX 77017

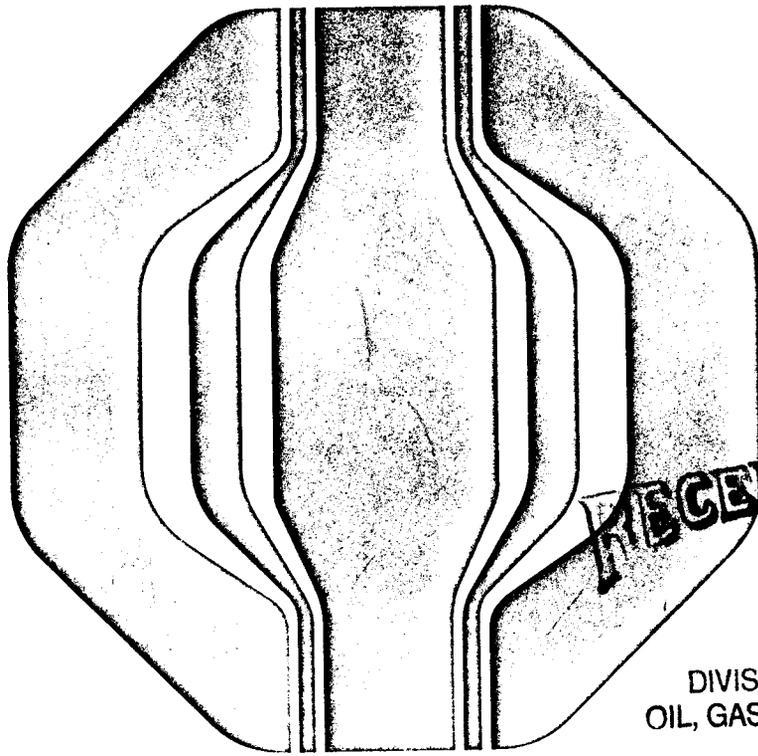
Operator  
1675 Broadway - Suite 2530  
Denver, CO. 80202  
Address

Ticket No. 34988

Date 7-21-81

No. Final Copies

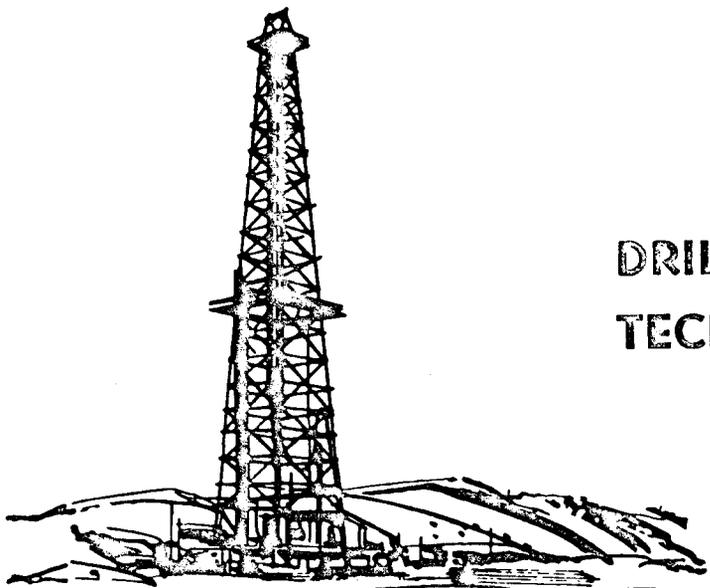
5



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1981

DIVISION OF  
OIL, GAS & MINING

# LYNES

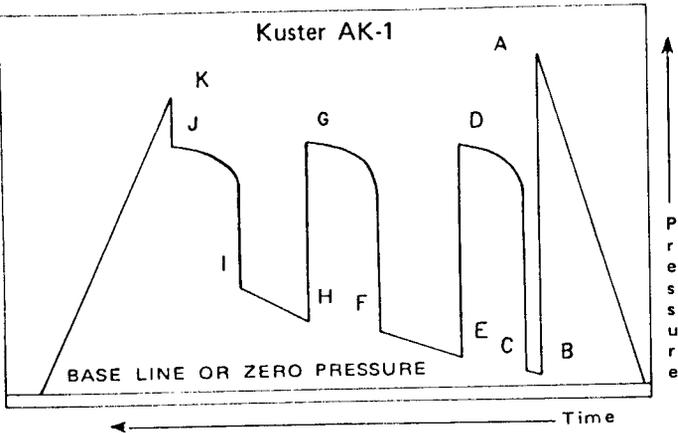


## DRILL STEM TEST TECHNICAL SERVICE REPORT

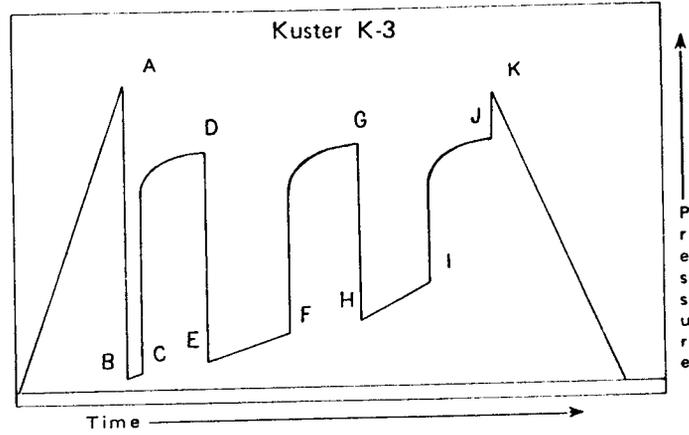
## GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

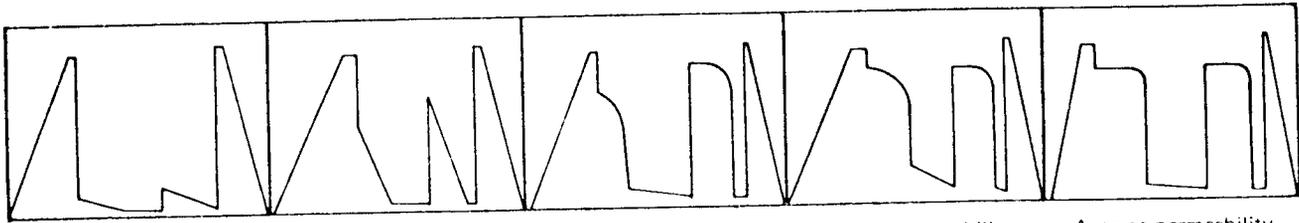
AK-1 recorders. Read from right to left.



K-3 recorders. Read from left to right.



- A – Initial Hydrostatic
- B – First Initial Flow
- C – First Final Flow
- D – Initial Shut-in
- E – Second Initial Flow
- F – Second Final Flow
- G – Second Shut-in
- H – Third Initial Flow
- I – Third Final Flow
- J – Third Shut-in
- K – Final Hydrostatic



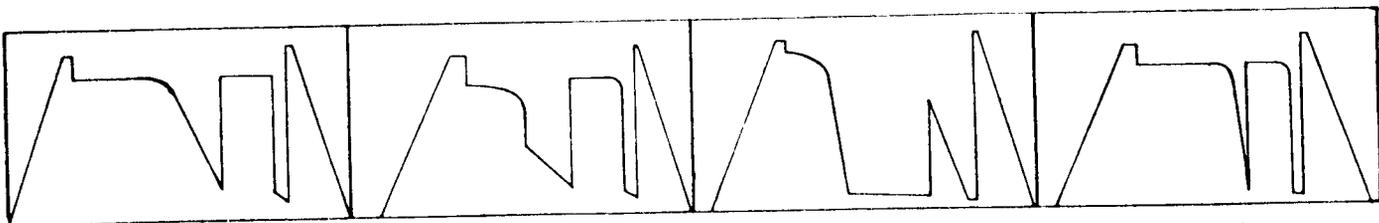
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.

Contractor Bayless Drilling Co. Top Choke 1"  
 Rig No. 5 Bottom Choke 9/16"  
 Spot -- Size Hole 8 3/4"  
 Sec. 9 Size Rat Hole --  
 Twp. 35 S Size & Wt. D. P. 4" 14.40  
 Rng. 26 E Size Wt. Pipe --  
 Field Wildcat I. D. of D. C. 2 1/2"  
 County San Juan Length of D. C. 589'  
 State Utah Total Depth 4624'  
 Elevation 6709' KB Interval Tested 4557'-4624'  
 Formation Upper Honoker Trail Type of Test Bottom Hole  
Conventional

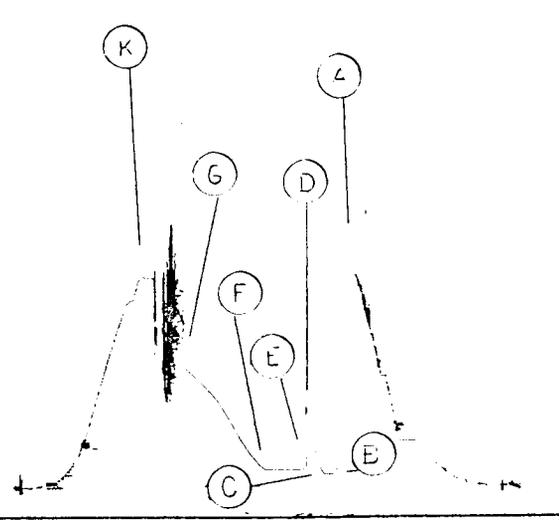
Flow No. 1 15 Min.  
 Shut-in No. 1 30 Min.  
 Flow No. 2 60 Min.  
 Shut-in No. 2 120 Min.  
 Flow No. 3 -- Min.  
 Shut-in No. 3 -- Min.  
 Bottom  
 Hole Temp. 114° F  
 Mud Weight 9.0  
 Gravity --  
 Viscosity 38

Tool opened @ 10:03

Inside Recorder

PRD Make Kuster AK-1  
 No. 10239 Cap. 7900 @ 4567'

	Press	Corrected
Initial Hydrostatic	A	2131
Final Hydrostatic	K	2100
Initial Flow	B	120
Final Initial Flow	C	120
Initial Shut-in	D	807
Second Initial Flow	E	164
Second Final Flow	F	164
Second Shut-in	G	1212
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--



Lynes Dist.: Rock Springs, WYO.  
 Our Tester: Myron Whiting  
 Witnessed By Callie Hagler

Did Well Flow - Gas NO Oil NO Water NO

RECOVERY IN PIPE: 300' Total Fluid  
 200' Mud = 1.22 bbl.  
 100' Water cut Mud = .61 bbl.

Top Sample R.W.: .85 @ 82° F = 6100 ppm. Cl.  
 Middle Sample R.W.: .45 @ 84° F = 11,000 ppm. Cl.  
 Bottom Sample R.W.: .1 @ 82° F = 65,000 ppm. Cl.

**Blow Description:**

1st Flow: Tool opened with a weak blow, increased to a 4" underwater blow at end of flow period.

2nd Flow: Tool opened with a very weak blow, increased to a 2" underwater blow, blow decreased and died in 45 minutes and remained thru flow period.

Address  
1675 Broadway - Suite 2530  
Denver, CO. 80202

Ticket No.

34988

Date

7-21-81

No. Final Copies

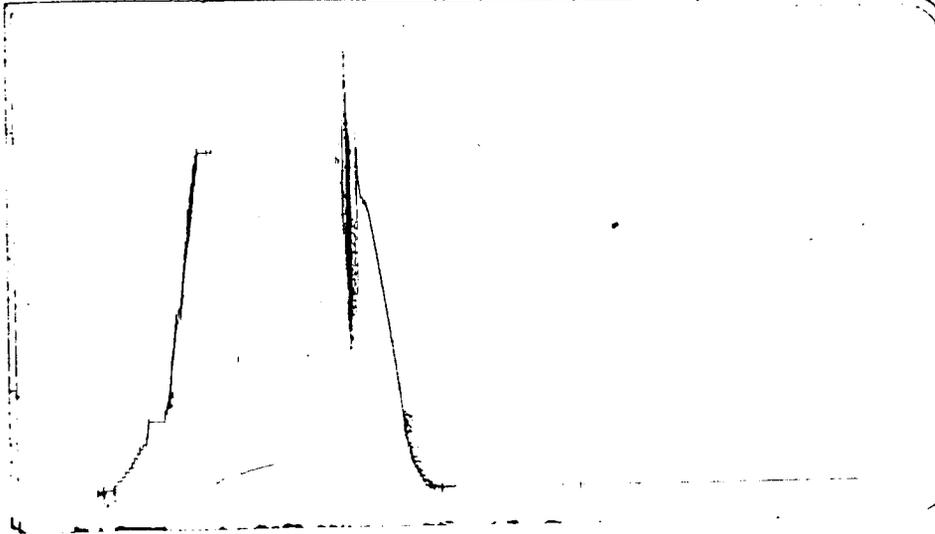
5

# LYNES, INC.

Tipperary Oil & Gas Corporation  
Operator

Coal Bed Canyon #1-9  
Well Name and No.

1  
DST No.



Inside Recorder

PRD Make Kuster K-3  
No. 13735 Cap. 2900 @ 4562'

	Press	Corrected
Initial Hydrostatic	A	2149
Final Hydrostatic	K	2139
Initial Flow	B	51
Final Initial Flow	C	84
Initial Shut-in	D	850
Second Initial Flow	E	109
Second Final Flow	F	162
Second Shut-in	G	1231
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Pressure Below Bottom  
Packer Bled To

PRD Make \_\_\_\_\_  
No. \_\_\_\_\_ Cap. \_\_\_\_\_ @ \_\_\_\_\_  
Press Corrected

Initial Hydrostatic	A	
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	

Pressure Below Bottom  
Packer Bled To

WELL NAME: COAL RED CANYON 1-

DST NUMBER: 002

RECORDER NUMBER: 010239

INTERVAL TESTED: 4557FT TO 4624FT

RECORDER DEPTH: 4567.000FT

TOTAL FLOW TIME: 15.0MIN

FIRST SHUT IN PRESSURE (LIQUID)

TIME (MIN)	(T+PHI)	PRESSURE
PHI	/PHI	(PSI)
.0	.0000	120.0
1.0	16.0000	126.0
2.0	8.5000	132.0
3.0	6.0000	140.0
4.0	4.7500	148.0
5.0	4.0000	156.0
6.0	3.5000	168.0
7.0	3.1429	182.0
8.0	2.8750	198.0
9.0	2.6667	216.0
10.0	2.5000	238.0
12.0	2.2500	276.0
14.0	2.0714	316.0
16.0	1.9375	372.0
18.0	1.8333	434.0
20.0	1.7500	492.0
22.0	1.6818	554.0
24.0	1.6250	596.0
26.0	1.5769	670.0
28.0	1.5357	717.0
30.0	1.5000	807.0

BOTH SHUT-INS HAVE BEEN INCREMENTED AND PLOTTED,  
BUT DUE TO INSUFFICIENT CHARACTER EXTRAPOLATED  
PRESSURES HAVE NOT BEEN MADE.

WELL NAME: COAL BED CANYON 1-9

DST NUMBER: 002

RECORDER NUMBER: 010239

INTERVAL TESTED: 4557FT TO 4624FT

RECORDER DEPTH: 4567.000FT

TOTAL FLOW TIME: 75.0MIN

SECOND SHUT IN PRESSURE (LIQUID)

TIME (MIN)	(T+PHI) /PHI	PRESSURE (PSI)
.0	.0000	164.0
1.0	76.0000	174.0
2.0	38.5000	180.0
3.0	26.0000	186.0
4.0	19.7500	192.0
5.0	16.0000	196.0
6.0	13.5000	200.0
7.0	11.7143	206.0
8.0	10.3750	214.0
9.0	9.3333	220.0
10.0	8.5000	228.0
12.0	7.2500	246.0
14.0	6.3571	262.0
16.0	5.6875	280.0
18.0	5.1667	294.0
20.0	4.7500	312.0
22.0	4.4091	330.0
24.0	4.1250	346.0
26.0	3.8846	368.0
28.0	3.6786	390.0
30.0	3.5000	414.0
40.0	2.8750	526.0
50.0	2.5000	654.0
60.0	2.2500	766.0
70.0	2.0714	871.0
80.0	1.9375	954.0
90.0	1.8333	1028.0
100.0	1.7500	1094.0
110.0	1.6818	1158.0
120.0	1.6250	1212.0

HORNER PLOT

TEST DATE: 07 21 81

WELL NAME: COAL BED CANYON 1-9

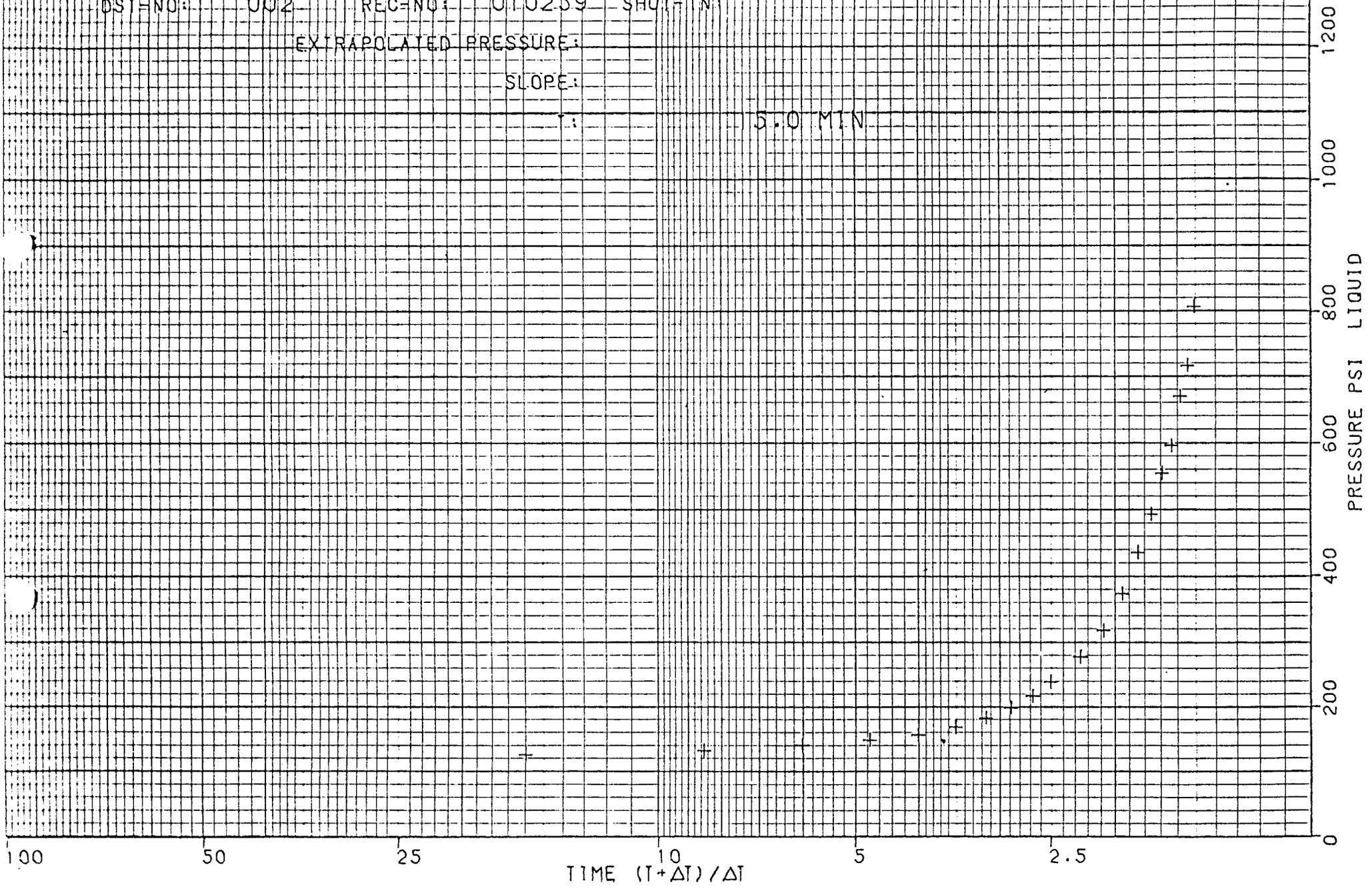
LOCATION:

DST-NO: 002 REC-NO: 010239 SHUT-IN

EXTRAPOLATED PRESSURE:

SLOPE:

5.0 MIN



HORNER PLOT

TEST DATE: 07 21 81

WELL NAME: COAL BED CANYON 1-9

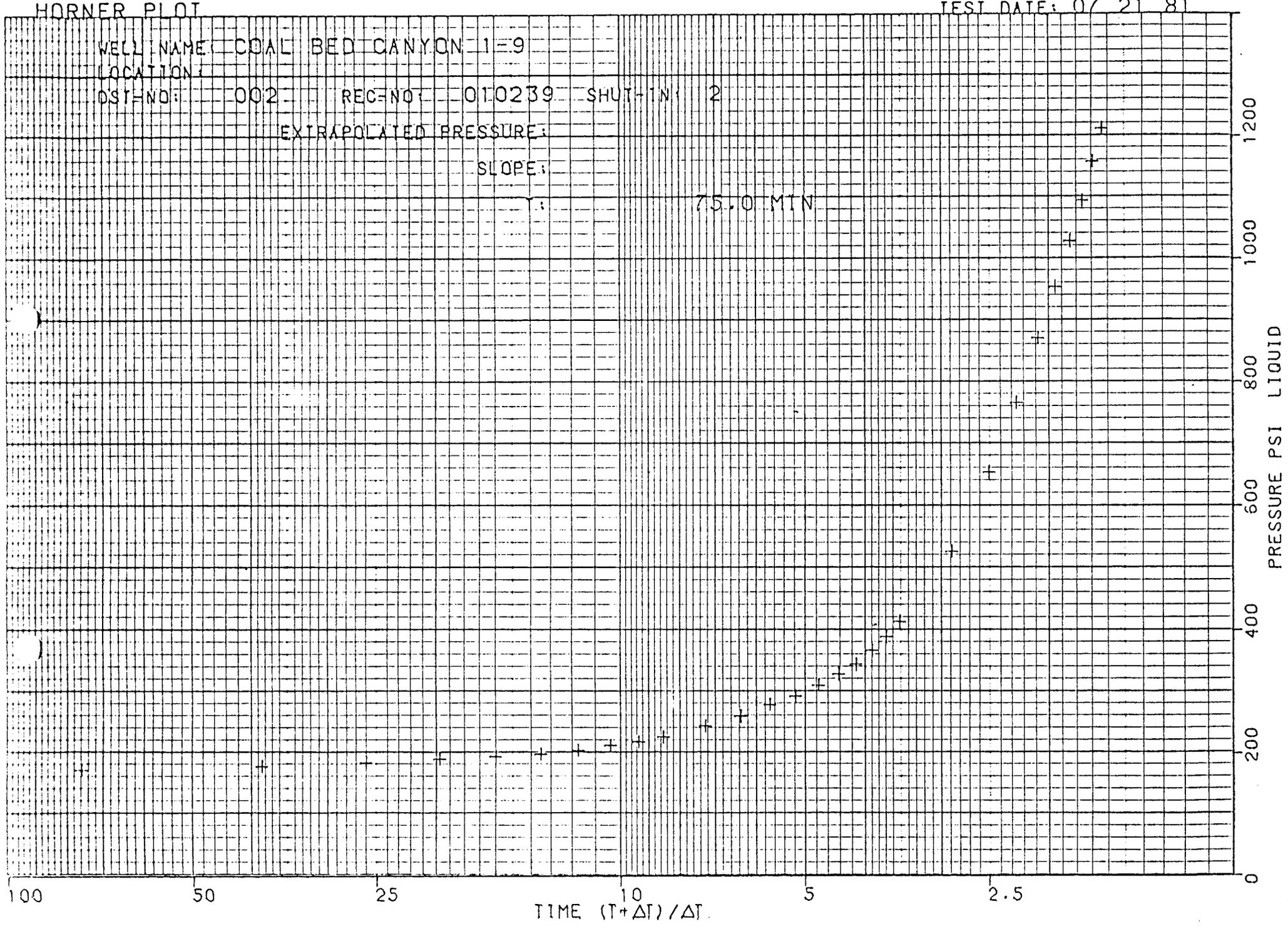
LOCATION:

OST-NO: 002 REC-NO: 010239 SHUT-IN: 2

EXTRAPOLATED PRESSURE:

SLOPE:

75.0 MIN



# LYNES, INC.

## Sampler Report

Company Tipperary Oil & Gas Corp. Date 7-21-81  
Well Name & No. Coal Bed Canyon #1-9 Ticket No. 34988  
County San Juan State Utah  
Test Interval 4557'-4624' DST No. 2

Total Volume of Sampler: 2150 cc.  
Total Volume of Sample: 2150 cc.  
Pressure in Sampler: 25 psig  
Oil: NONE cc.  
Water: 2150 Mud cut cc.  
Mud: -- cc.  
Gas: NONE cu. ft.  
Other: NONE

Sample R.W.: .1 @ 82°F = 65,000 ppm. Cl.

### Resistivity /

Make Up Water R.W.: .95 @ 91°F of Chloride Content 4900 ppm.

Mud Pit Sample R.W.: .55 @ 82°F of Chloride Content 9500 ppm.

Gas/Oil Ratio \_\_\_\_\_ Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F

Where was sample drained On Location

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# NOMENCLATURE (Definition of Symbols)

- $Q$  = average production rate during test, bbls./day
- $Q_g$  = measured gas production rate during test, MCF/day
- $k$  = permeability, md
- $h$  = net pay thickness, ft. (when unknown, test interval is chosen)
- $\mu$  = fluid viscosity, centipoise
- $Z$  = compressibility factor
- $T_r$  = reservoir temperature, ° Rankine
- $m$  = slope of final SIP buildup plot, psig/cycle (psig<sup>2</sup>/cycle for gas)
- $b$  = approximate radius of investigation, feet
- $r_w$  = wellbore radius, feet
- $t_o$  = total flowing time, minutes
- $P_o$  = Extrapolated maximum reservoir pressure, psig
- $P_f$  = final flowing pressure, psig
- P.I. = productivity index, bbls./day/psi
- P.I.<sub>d</sub> = theoretical productivity index with damage removed, bbl./day/psi
- D.R. = damage ratio
- E.D.R. = estimated damage ratio
- AOF = absolute open flow potential, MCF/D
- AOF<sub>d</sub> = theoretical absolute open flow if damage were removed
- $Z$  = subsea depth
- W = water gradient based on salinity
- H<sub>w</sub> = potentiometric surface

INTERPRETATION CALCULATIONS (OIL/WATER)	
<b>AVERAGE PRODUCTION RATE DURING TEST</b> $Q = 1440 \left[ \frac{q_{sc} \text{ (or) } q_{sc} \text{ (reservoir) } + q_{sc} \text{ (or) } q_{sc} \text{ (reservoir)}}{\text{initial flow time} + \text{final flow time}} \right]$ $= 1440 \left[ \frac{(\quad)}{(\quad)} + \frac{(\quad)}{(\quad)} \right]$ $= 1440 \left[ 0.145 \text{ or } 0.0073 \left[ \frac{(\quad)}{(\quad)} \right] \right]$ Mod. Extension = ..... ft. = ..... bbls./day      (Dr. - Core Conversion Is Considered)	
<b>FLUID PROPERTIES</b> Estimated Bottom Hole Temperature °	
AP Gravity @ 60° F. .... ° Specific Gravity @ 60° F. ....	Est. Viscosity ..... cp
<b>TRANSMISSIBILITY</b> $kh = \frac{162.6 Q_o \mu}{m} = \frac{162.6 (\quad)}{(\quad)} = \dots \text{ md-ft cp}$	
<b>IN SITU CAPACITY</b> $kh = (\quad) (\quad) = \dots \text{ md-ft}$	
<b>AVERAGE EFFECTIVE PERMEABILITY</b> Estimated Pay Thickness Ft. $k = \frac{(\quad)}{(\quad)} = \dots \text{ md}$ Actual Pay Thickness Ft.	
<b>PRODUCTIVITY INDEX</b> $PI = \frac{Q_o}{P_o - P_f} = \frac{(\quad)}{(\quad) - (\quad)} = \dots \text{ bbl./day psi}$	
<b>DAMAGE RATIO</b> $D.R. = 0.183 \left[ \frac{P_o - P_f}{m} \right] = 0.183 \left[ \frac{(\quad)}{(\quad)} \right] = \dots$	
<b>PRODUCTIVITY INDEX WITH DAMAGE REMOVED</b> $P.I._d = P.I. \times D.R. = (\quad) (\quad) = \dots \text{ bbl./day psi}$	
<b>APPROXIMATE RADIUS OF INVESTIGATION</b> $b = \sqrt{H_o} = \sqrt{(\quad) (\quad)} = \dots \text{ ft.}$	
<b>Drawdown Factor</b> = $\frac{I.S.I.P. - F.S.I.P. \times 100}{I.S.I.P.} = \frac{(\quad) - (\quad)}{(\quad)} \times 100 = \dots \%$ (4% to 5% is considered serious or substantial)	
<b>Potentiometric Surface</b> = $H_w = Z + \frac{P_o}{W}$ $H_w = \dots + \frac{(\quad)}{(\quad)} = \dots \text{ ft.}$	

INTERPRETATION CALCULATIONS (GAS)	
<b>ESTIMATED GAS PROPERTIES</b> Estimated Bottom Hole Temperature ° Gravity @ 60° F. .... Viscosity (Res) ..... cp      Compressibility Factor (Z) .....	
<b>TRANSMISSIBILITY</b> Measured DST Gas Rate ..... mcf/d	
$kh = \frac{1637 Q_g \mu Z T_r}{m} = \frac{1637 (\quad) (\quad) (\quad) (\quad)}{(\quad)} = \dots \frac{\text{md-ft}}{\text{cp}}$	
<b>IN SITU CAPACITY</b> $kh = (\quad) (\quad) = \dots \text{ md-ft}$	
<b>AVERAGE EFFECTIVE PERMEABILITY</b> Estimated Pay Thickness Ft. $k = \frac{(\quad)}{(\quad)} = \dots \text{ md}$ Actual Pay Thickness Ft.	
<b>APPROXIMATE RADIUS OF INVESTIGATION</b> $b = 0.02 \sqrt{L_o P_o} = 0.02 \sqrt{(\quad) (\quad)} = \dots \text{ ft.}$	
<b>ACTUAL CAPACITY</b> $kh = \frac{3270 Q_g \mu Z T_r \log(0.472 \frac{b}{r_w})}{P_o^2 - P_f^2} = \frac{3270 (\quad) (\quad) (\quad) (\quad) (\quad)}{(\quad) - (\quad)} = \dots \text{ md-ft}$	
<b>ESTIMATED DAMAGE RATIO</b> $E.D.R. = \frac{(P_o^2 - P_f^2)}{m (\log T_o + 2.65)} = \dots$ E.D.R. = .....	
<b>ESTIMATED RANGE OF AOF POTENTIAL</b> $\text{Max. AOF} = \frac{Q_o P_o^2}{P_o^2 - P_f^2} = \frac{(\quad) (\quad)}{[(\quad) - (\quad)] (\quad)} = \dots \text{ MCF/D}$ $\text{Min. AOF} = \frac{Q_o P_o^2}{\sqrt{P_o^2 - P_f^2}} = \frac{(\quad) (\quad)}{\sqrt{[(\quad) - (\quad)]}} = \dots \text{ MCF/D}$	
<b>ESTIMATED RANGE OF AOF POTENTIAL, DAMAGE REMOVED</b> $\text{Max. AOF}_d = (\text{Max. AOF}) (D.R.) = (\quad) (\quad) = \dots \text{ MCF/D}$ $\text{Min. AOF}_d = (\text{Min. AOF}) (D.R.) = (\quad) (\quad) = \dots \text{ MCF/D}$	
<b>Drawdown Factor</b> = $\frac{I.S.I.P. - F.S.I.P. \times 100}{I.S.I.P.} = \frac{(\quad) - (\quad)}{(\quad)} \times 100 = \dots \%$ (4% to 5% is considered serious or substantial)	
<b>Potentiometric Surface</b> = $H_w = Z + \frac{P_o}{W}$ $H_w = \dots + \frac{(\quad)}{(\quad)} = \dots \text{ ft.}$	

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other Dry Hole

2. NAME OF OPERATOR  
Tipperary Oil and Gas Company

3. ADDRESS OF OPERATOR  
1675 Broadway Suite 2530 Denver 80202

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 600' FNL & 600' FEL Sec 9  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH: Same

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(other)		

5. LEASE <u>Fee</u>	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
8. FARM OR LEASE NAME <u>Coal Bed Canyon</u>	
9. WELL NO. <u>1-9</u>	
10. FIELD OR WILDCAT NAME <u>Wildcat</u>	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>Sec 9, T35S, R26E</u>	
12. COUNTY OR PARISH <u>San Juan</u>	13. STATE <u>Utah</u>
14. API NO. <u>43-03730686</u>	
15. ELEVATIONS (SHOW DF, KDB, AND WD) <u>6699' GR</u>	

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. 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.)\*

Subject well was drilled to a total depth of 5704' in the Paradox Salt. TD was reached on 7-26-81. No water flows were encountered in the well and there were no economic shows of oil or gas. Petroleum Engineer Michael T. Minder was contacted and approved plugging on 7-26-81. The following plugs were set:

No. 1	184 sx	5693-5200'
No. 2	37 sx	2900-2800'
No. 3	187 sx	2500-2000'
No. 4	175 sx	35-0'

Dry hole marker was set on 7-27-81. The pad is currently being rehabilitated.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

SIGNED Donald C. Condon TITLE TP Engr. Inc DATE 8-3-81

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**APPROVED BY THE DIVISION  
OF OIL, GAS, AND MINING**  
DATE: 8-11-81  
BY: M.T. Minder

August 5, 1981

Tipperary Oil & Gas Company  
1675 Broadway, Suite 2530  
Denver, Colorado 80202

Re: Well No. Coal Bed Canyon #1-9  
Sec. 9, T. 35S, R. 26E  
San Juan County, Utah

Gentlemen:

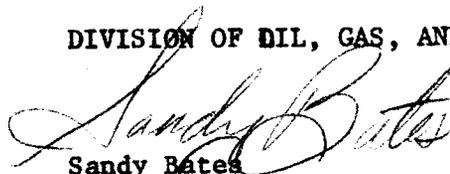
This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very Truly yours,

DIVISION OF OIL, GAS, AND MINING



Sandy Bates  
Clerk-Typist

/lm  
Enclosure

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116

**RECEIVED**  
AUG 05 1981

DIVISION OF  
OIL, GAS & MINING

\*REPORT OF WATER ENCOUNTERED DURING DRILLING\*

Well Name & Number Coal Bed Canyon 1-9  
Operator Tipperary Oil and Gas Address 1675 Broadway Suite 2530 Denver  
Contractor Bayless Drilling Company Address \_\_\_\_\_  
Location NE ¼ NE ¼ Sec. 9 T: 35S R. 26E County San Juan

Water Sands

	<u>Depth</u>		<u>Volume</u> Flow Rate or Head	<u>Quality</u> Fresh or Salty
	From	To		
1.	No water sands encountered			
2.				
3.				
4.				
5.				

(Continue of reverse side if necessary)

Formation Tops

Shinrump 2600', Ismay 5236', Upper Desert Creek 5454', Lower Desert Creek 5496', Salt 5571'.  
Remarks

NOTE: (a) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure.  
(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

STATE OF UTAH OIL & GAS CONSERVATION COMMISSION

RECEIVED

PLICATE\* (See other instructions on reverse side)

3

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] DRY [X] Other [ ]

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] DIVISION OF OIL, GAS & MINING

2. NAME OF OPERATOR: Tipperary Oil and Gas Corp.

3. ADDRESS OF OPERATOR: 1675 Broadway Suite 2530 Denver, Colo. 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\* At surface 600' FNL 600' FEL Sec. 9-T35S, R26E At top prod. interval reported below At total depth NENE

14. PERMIT NO. 43-037-30686 DATE ISSUED 6-26-81

5. LEASE DESIGNATION AND SERIAL NO.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME Coal Bed

9. WELL NO. #1-9

10. FIELD AND POOL, OR WILDCAT Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 9-T-35S, R26E

12. COUNTY OR PARISH San Juan 13. STATE Utah

15. DATE SPUDDED 7-2-81 16. DATE T.D. REACHED 7-26-81 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 6699' GR 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY Rotary 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN Slumberger logs, DI SFLm Density-Nuetron BHC Sonic 27. WAS WELL CORED

Table with 6 columns: CASING SIZE, WEIGHT, LB./FT., DEPTH SET (MD), HOLE SIZE, CEMENTING RECORD, AMOUNT PULLED. Includes data for 9-5/8" casing, 32.3# weight, 2050' depth, 12 1/4" hole size, 1000 sx class H 50-50 2% Bentonite.

Table with 8 columns: SIZE, TOP (MD), BOTTOM (MD), SACKS CEMENT\*, SCREEN (MD), SIZE, DEPTH SET (MD), PACKER SET (MD). Includes LINER RECORD and TUBING RECORD sections.

Table with 2 columns: 31. PERFORATION RECORD (Interval, size and number) and 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. (DEPTH INTERVAL (MD), AMOUNT AND KIND OF MATERIAL USED).

Table with 8 columns: DATE FIRST PRODUCTION, PRODUCTION METHOD, WELL STATUS (Producing or shut-in), DATE OF TEST, HOURS TESTED, CHOKE SIZE, PROD'N. FOR TEST PERIOD, OIL—BBL., GAS—MCF., WATER—BBL., GAS-OIL RATIO. Includes FLOW, TUBING PRESS., CASING PRESSURE, CALCULATED 24-HOUR RATE, OIL—BBL., GAS—MCF., WATER—BBL., OIL GRAVITY-API (CORR.).

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records SIGNED Mike Farn TITLE District Engineer DATE 8/10/81

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Cutler	2856'	2910'	DST#1 IHP 1266, IFP-24 to 79 15 min. ISIP- 824 30 min. FFP-79 to 197 60 min. FSIP-710 120 min. FHP 1260'
Upper Hermosa	4557	4624'	DST #2 IHP-2145' IFP 36 to 60- 15min. ISIP-835 30 min. FFP 103to 152 60 min. FSIP- 1235 120 min. FHP 2040'

NAME	MEAS. DEPTH	TRUE VERT. DEPTH