Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SL-045053-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: –

7. UNIT AGREEMENT NAME: Clay Basin ~~Gas Storage Agreement~~

8. FARM OR LEASE NAME: Unit

9. WELL NO.: 47-S

10. FIELD AND POOL, OR WILDCAT: Clay Basin ~~Gas Storage~~

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 27-3N-24E., 6th PM

12. COUNTY OR PARISH: Daggett

13. STATE: Utah

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER Gas Storage SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Wexpro Company

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: NE NW 1219' FNL, 1380' FWL
At proposed prod. ~~zone~~

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 41 miles south of Rock Springs, Wyoming

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1219

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: –

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1150 Unit 4

19. PROPOSED DEPTH: 6050 Morrison

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): GR 6411

22. APPROX. DATE WORK WILL START*: Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	54.5	320	385 sx reg G w/3% CaCl
8-3/4	7 *	23	6,050	To be determined

* Will have 9-5/8", 36#, landed at 280' on top of the 7" tapered casing.

Refer to Master Drilling Plan.

2. FORMATION TOPS: Frontier at 5441', Mowry at 5611', Dakota at 5791', and Cedar Mountain-Morrison at 5941'.

8. LOGGING, TESTING AND CORING: DLL and GR-Caliper from surface to TD.
FDC/CNL from 4050' to TD.

No DST's 120' core in Dakota 5790-5910'.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED [signature] TITLE Drilling Superintendent DATE July 9, 1982

(This space for Federal or State office use)

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

PERMIT NO. APPROVAL DATE 7/14/82

APPROVED BY [signature] TITLE ~~7/14/82~~ Director DATE 7/14/82

CONDITIONS OF APPROVAL, IF ANY:

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

MINERALS MANAGEMENT SERVICE
OIL AND GAS OPERATIONS
RECEIVED
JUL 14 1982
SALT LAKE CITY, UTAH

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER Gas Storage SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Wexpro Company

3. ADDRESS OF OPERATOR: P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: NE NW 1219' FNL, 1380' FWL
At proposed prod. zone:

5. LEASE DESIGNATION AND SERIAL NO.: SL-045053-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: -

7. UNIT AGREEMENT NAME: Clay Basin Gas Storage Agreement

8. FARM OR LEASE NAME: Unit

9. WELL NO.: 47-S ~~47-S~~

10. FIELD AND POOL, OR WILDCAT: Clay Basin Gas Storage

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 27-3N-24E., ~~6th PM~~ SLB

12. COUNTY OR PARISH: Daggett

13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 41 miles south of Rock Springs, Wyoming

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1219

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: -

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 1150 Unit 4

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20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): GR 6411

22. APPROX. DATE WORK WILL START*: Upon approval

RECEIVED
AUG 04 1982
DIVISION OF OIL, GAS & MINING

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SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
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8-3/4	7 *	23	6,050	To be determined

* Will have 9-5/8", 36#, landed at 280' on top of the 7" tapered casing.

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FDC/CNL from 4050' to TD.

No DST's 120' core in Dakota 5790-5910'.

Subject to the Master Surface Use Plan filed in the Clay Basin Unit

en or plug back, give data on present productive zone and proposed new productive data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED A. J. Maier TITLE Drilling Superintendent DATE July 9, 1982

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY [signature] TITLE FOR E. W. GUYNN DISTRICT OIL & GAS SUPERVISOR DATE AUG 2 1982

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

NOTICE OF APPROVAL

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

State Oil - Gas

Identification No. 133-82

United States Department of the Interior
Minerals Management Service
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104-3884

MINERALS MANAGEMENT SERVICE
OIL & GAS OPERATIONS
RECEIVED
JUL 19 1982
SALT LAKE CITY, UTAH

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Wexpro Company

Project Type Gas Storage Well

Project Location 1219' FNL 1380' FWL Section 27, T3N, R24E

Well No. 47-5 Lease No. SL-045053-A

Date Project Submitted July 14, 1982

FIELD INSPECTION Date June 7, 1982

Field Inspection Participants See attached list

Related Environmental Documents: Environmental Impact Analysis, a proposed Gas Storage Project Mountain Fuel Resources, Inc. USGS, Rock Springs and BLM, Vernal 1976
EAR Clay Basin Gas Storage Project, BLM, Vernal 1976

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

July 16, 1982
Date Prepared

Gregory Darlington
Environmental Scientist

I concur

JUL 21 1982
Date

W P Martin FOR E. W. GUYNN
DISTRICT OIL & GAS SUPERVISOR
District Supervisor

Proposed Actions:

Wexpro plans to drill the #47-5 gas storage well at 6050' depth into the Dakota formation. A new access road of about 1100 feet length will be required. A major low water crossing will be needed along the access road. The road follows the proposed route for a lateral flowline hookup. A pad 135' by 375' with a reserve pit 75' by 100' ~~would~~ will be constructed on the 2.2 acre maximum area of disturbed surface indicated as an area of operations for the project.

Recommended Approval Conditions:

The operator agrees to accept and adhere to the following conditions in addition to the plans outlined in the APD:

1. BLM stipulations
2. Lease stipulations
3. ~~Provide adequate logs for the identification of other minerals as requested in the Mineral Evaluation Report and Mining Report.~~

FIELD NOTES SHEET

Date of Field Inspection: June 7, 1982

Well No.: 47-5

Lease No.: SL-045053-A

Approve Location: ✓

Approve Access Road: ✓

Modify Location or Access Road: Road to follow the lateral back to existing road. 1100 feet of road according to the map. 406' North 170' West of original Stake

Evaluation of Criteria for Categorical Exclusion

1. Public Health and Safety
2. Unique Characteristics
3. Environmentally Controversial Items
4. Uncertain and Unknown Risks
5. Establishes Precedents
6. Cumulatively Significant
7. National Register Historic Places
8. Endangered/Threatened Species
9. Violate Federal, State, Local, or Tribal Laws

If this project is not eligible for Categorical Exclusion circle the numbers of the above criteria requiring the preparation of an EA.

Comments and special conditions of approval discussed at onsite: (include local topography) Access road was changed at onsite. A North move was mandated by the approved gas storage area boundary, otherwise an extension would have been needed. If the low water crossing doesn't work then 2 six foot culverts would be the alternative discussed at the onsite. Pits probably should be lined, but this was left at the discretion of the operator.

CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria 516 DM 2.3.A	Federal/State Agency: Correspondence (date)	Federal/State Agency: Phone check (date)	Federal/State Agency: Meeting (date)	Local and private correspondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
Public health and safety							1, 2, 4, 6	June 7 1982	
Unique characteristics							1, 2, 4, 6		
Environmentally controversial							1, 2, 4, 6		
Uncertain and unknown risks							1, 2, 4, 6		
Establishes precedents							1, 2, 4, 6		
Cumulatively significant							1, 2, 4, 6		
National Register historic places							1, 6		
Endangered/ threatened species							1, 6		
Violate Federal, State, local, tribal law							1, 2, 4, 6		

CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey (Conservation Division, Geological Division, Water Resource Division, Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement
8. Onsite Requirements Other than the Items 1.-7.

Field Inspection Participants at the
June 7, 1982 Wexpro Onsites in Clay Basin

Greg Darlington - MMS, Vernal
Max McCoy - MMS, Vernal
Ralph Huff - BLM, Vernal
Keith Chapman - BLM, Vernal
Jennifer Head - Wexpro Drilling
Albert Kaiser - Wexpro Construction
Larry Bodyfelt - Wexpro Surveying
Ron Noble - Mt. Fuel Supply
Mr. DeBernardi - Mt. Fuel Supply
Fred Hanking - Wexpro Surveying

About Five other Mt. Fuel Supply employees also accompanied us to most of the locations which were looked at that day.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
VERNAL DISTRICT OFFICE
170 South 500 East
Vernal, Utah 84078

MINERALS MANAGEMENT SERVICE
OIL & GAS OPERATIONS
RECEIVED
JUL 19 1982
SALT LAKE CITY, UTAH

IN REPLY REFER TO
T & R
U-801

July 15, 1982

Ed Guynn, District Engineer
Mineral Management Service
2000 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104

Re: WEXPRO Company
Clay Basin Gas Storage Wells
Wells: 43, 44, 45, 46, 47, 49, 52, 54, 55, 56, 57, 59.

Dear Mr. Guynn:

This is to inform you that we have received from WEXPRO their Master Plan of Development for the above referenced gas storage wells in the Clay Basin area of Daggett County, Utah. We are in concurrence with this master plan with one change; the access road to well #46 will enter the location perpendicular to the location at the northeast corner of the pad. We have discussed this with Jennifer Head of WEXPRO and she has agreed to this change.

Should there be any questions, your BLM contact is Gary Slagel.

Sincerely,

Ralph J. Heft
Area Manager
Diamond Mountain Resource Area

cc: MMS, Vernal
WEXPRO, Rock Springs

Master 10-Point Drilling Plan
Clay Basin Unit Gas Storage
Wells No. 43-S through 60-S
T.3N., R.24E.
Daggett County, Utah

1. SURFACE FORMATION: Mancos Shale.

2. FORMATION TOPS: Refer to individual Application for Permit to Drill.

3. WATER, OIL, GAS or MINERAL BEARING FORMATIONS:

The gas storage reservoir is the Dakota. Natural gas is expected in the Frontier. No water or mineral bearing formations are present.

4. CASING PROGRAM:

Footage	Size	Grade	Weight	Condition	Thread	Cement
320	13-3/8	K-55	54.5	New	8rd, ST&C	385 sx reg. G w/3% CaCl
280	9-5/8	K-55	36	New	8rd, ST&C	To be determined
TD	7	K-55	23	New	8rd, LT&C	To be determined

5. PRESSURE CONTROL EQUIPMENT: (see attached diagram)
Operator's minimum specifications for pressure control equipment requires a 12-inch 3000 psi double gate blowout preventer. Surface casing and all preventer rams will be pressure tested to 1900 psi for 15 minutes using rig pump and mud. BOP's will be checked daily as to mechanical operating condition and will be tested by rig equipment after each string of casing is run. All ram type preventers will have hand wheels which will be operative at the time the preventers are installed.

6. MUD PROGRAM: Fresh water gel base mud from surface to TD. Sufficient mud materials to maintain mud properties, control lost circulation and to contain blowout will be available at the wellsite.

7. AUXILIARY EQUIPMENT:
   a) Manually operated kelly cock
   b) No floats at bit
   c) Monitoring of mud system will be visual
   d) Full opening floor valve manually operated

8. LOGGING, TESTING, AND CORING: Refer to individual Application for Permit to Drill.

9. ABNORMAL PRESSURE AND TEMPERATURE: None expected; BHT of 135°F anticipated.

10. ANTICIPATED STARTING DATE: Upon approval

DURATION OF OPERATION: Drilling time 12 days each

Completion 4 days each

MOUNTAIN FUEL SUPPLY COMPANY

3000 psi BLOWOUT PREVENTION EQUIPMENT

CHECKLIST [illegible] EQUIPMENT

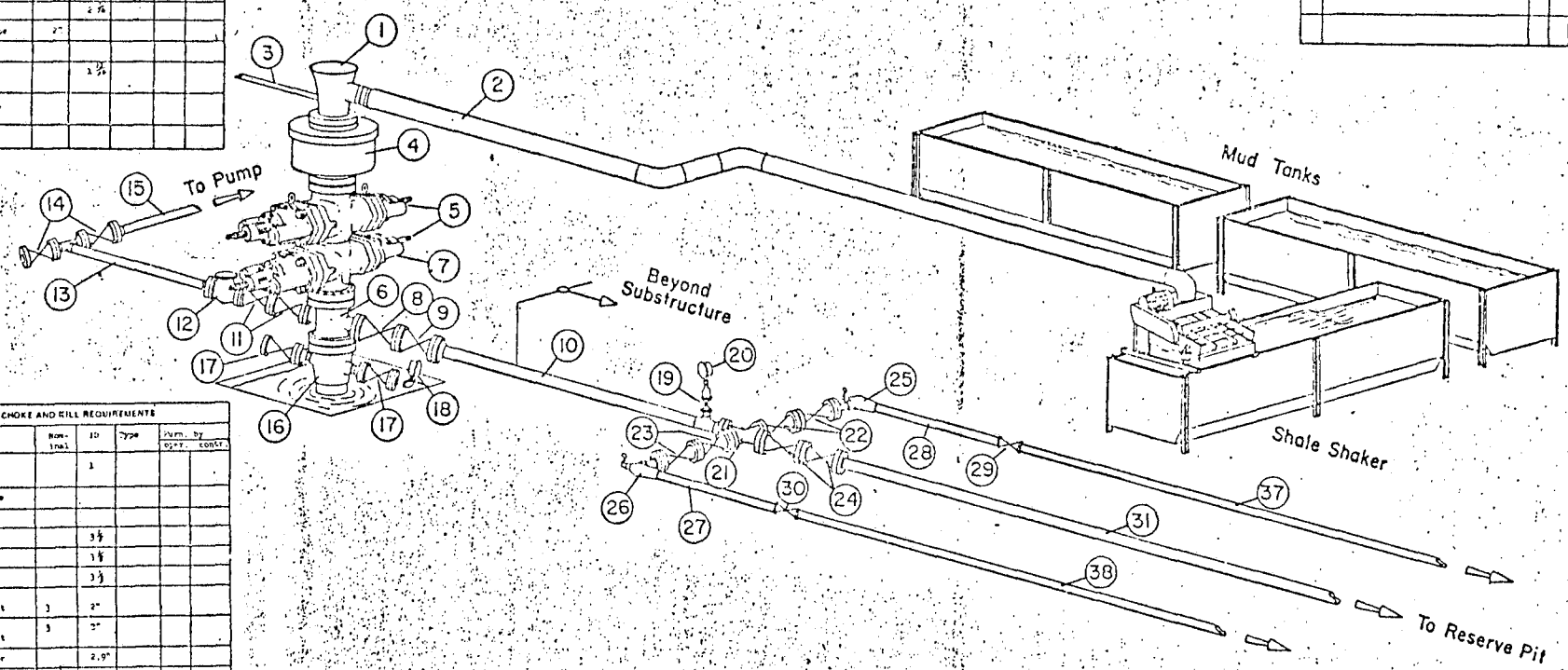
Well _____ Casing

Contractor and operator to furnish items checked (a)

No.	STANDARD STACK REQUIREMENTS Item	Nominal	ID ID	Type	Purn. by oper.	Purn. by contr.
1	Drilling Nipple					
2	Flowline					
3	Fill up Line	2"				
4	Annular Preventor			Hydril Cameron Shaffer		
5	Two single or one dual Hyd. oper. rams			U, GRC, P, LMS		
6	Drilling Spool with 2" and 3" outlets			Forged		
7	As Alternate to (6) Run and Kill lines from outlets in this ram.					
8	Valve Gate		3 1/8			
9	Valve-Hydraulically operated Gate		3 1/8			
10	Choke Line		2.9			
11	Gate Valves		2 1/16			
12	Check Valve		2 1/16			
13	Kill Line	2"				
14	Valves-Gate		2 1/16			
15	Kill line to Pumps	2"				
16	Casing Head					
17	Valves Gate___ Plug___		1 13/16			
18	Compound Pressure Gauge					
	Wear Bushing					

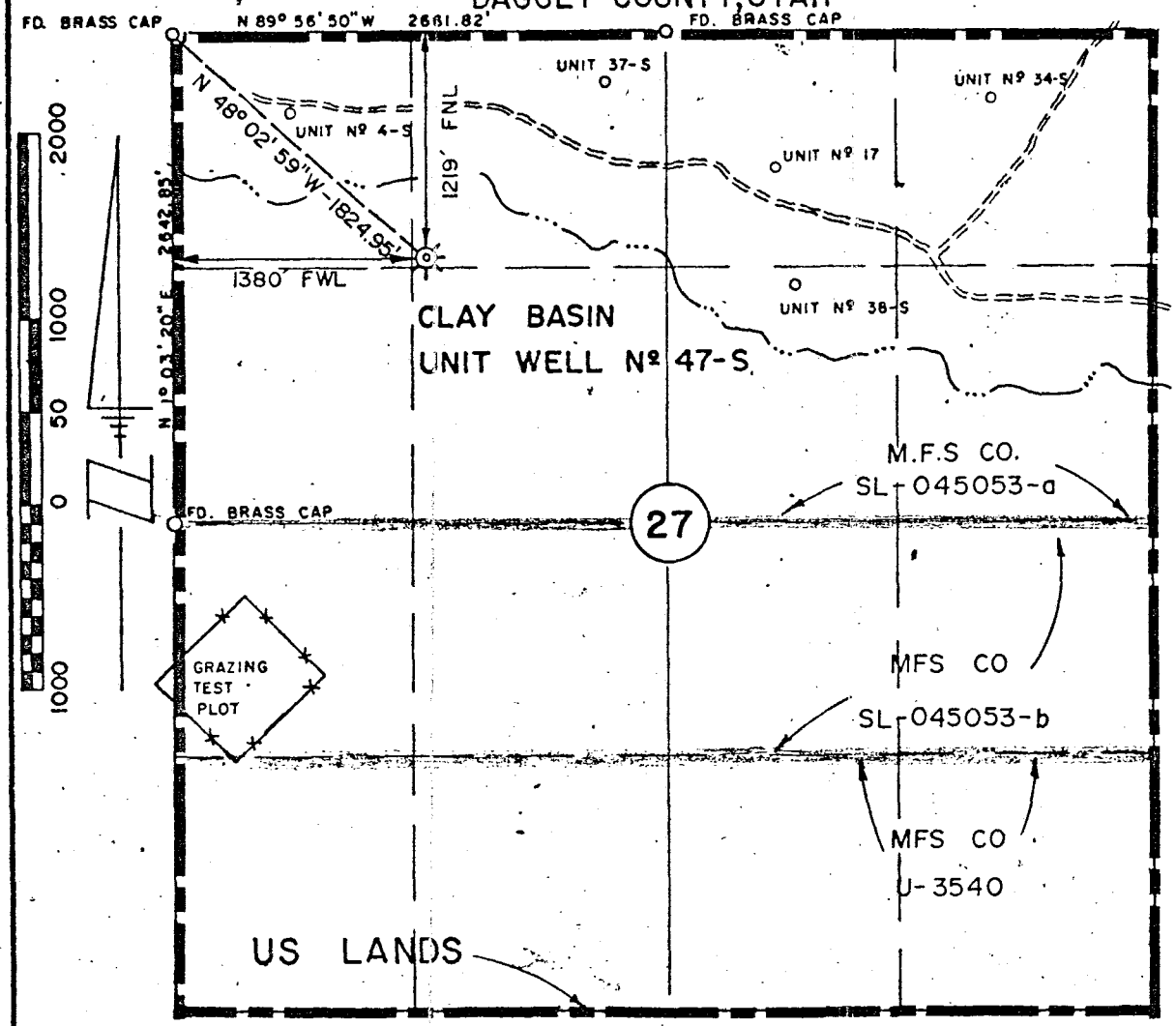
SPECIAL CHOKE AND KILL REQUIREMENTS					

SPECIAL STACK REQUIREMENTS					



STANDARD CHOKE AND KILL REQUIREMENTS No	Item	Nominal	ID	Type	Purn. by oper.	Purn. by contr.
19	Valve Gate___ Plug___		1			
20	Compound Pressure					
21	Cross 3"X3					
22	Valve Gate		3 1/8			
23	Valve Gate		3 1/8			
24	Valve Gate		3 1/8			
25	Choke Line H-2 or Equivalent	3	2"			
26	Choke Line H-2 or Equilivent	3	2"			
27	Line to Separator		2.9"			
28	Line to Separator		2.9"			
29	Valve Gate	1	3 1/8			
30	Valves Gate	1	3 1/8			
31	Line to Res. Pit	1	2.9"			
		1				
		1				
37	Line to Res.		2.9"			
38	Line to Res. Pit		2.9"			

T. 3 N., R. 24 E., S. L. B. & M.
DAGGET COUNTY, UTAH



MINERAL
SURFACE

LOCATION PLAN
SCALE 1" = 1000

BASIS OF BEARING: COMPANY SURVEY COORDINATE NETWORK

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge.

LEGEND

- ℄ Well
- Stone Corner
- Pipe Corner

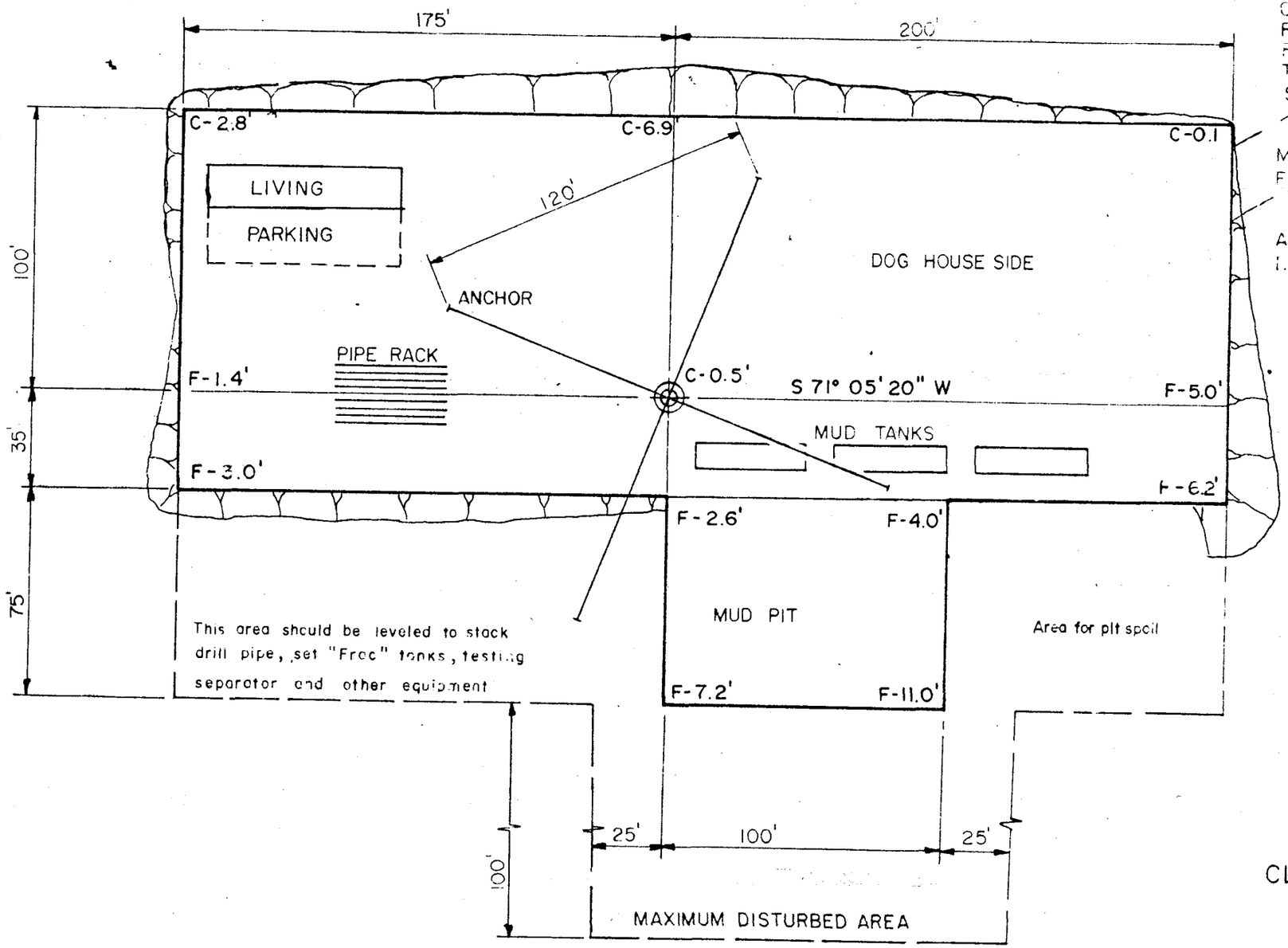
Larry G. Bodyfelt
SURVEYOR
LARRY G. BODYFELT WYO. RLS Nº 3507
PRACTICING IN UTAH PER TITLE 58 CHAPTER 22-21

ENGINEERING RECORD	
SURVEYED BY	F.H. 6/1/82
REFERENCES	G.L.O. PLAT ☒ U.S.G.S. QUAD. MAP ☒
LOCATION DATA	
FIELD	CLAY BASIN
LOCATION:	NE 1/4 NW 1/4 SEC. 27, T. 3 N., R. 24 E., S.L.B. & M. 1219 FNL 1380 FWL
DAGGET COUNTY, UTAH	
WELL ELEVATION: 6411 AS GRADED - DETERMINED BY EDM/TRIGONOMETRIC LEVELS FROM COMPANY ESTABLISHED BENCHMARK	

WEXPRO COMPANY

CERTIFIED WELL LOCATION AND WELL SITE PLAN
CLAY BASIN UNIT WELL NO. 47-S

DRAWN: 6/7/82 KVB	SCALE: 1" = 1000
CHECKED: CRW	DRWG. NO. M-20091
APPROVED:	



AT SITES WHERE TOPSOIL IS PRESENT SAME IS TO BE REMOVED AND STORED ON THE ADJACENT LAND FOR RESTORATION AT THE SITE WHEN REQUIRED. 2018 CU. YDS. OR THE TOP 6" OF TOPSOIL IS TO BE STOCKPILED.

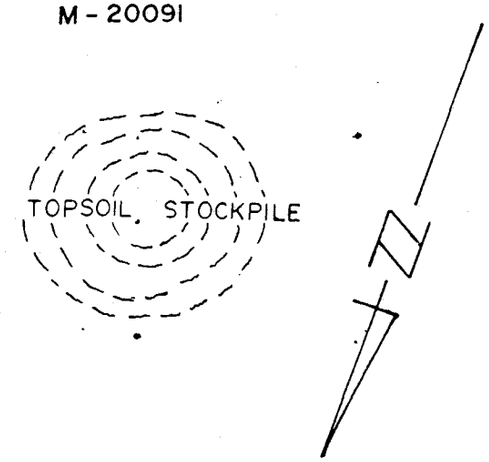
PROPOSED ACCESS ROAD

MUD PITS ARE TO BE FENCED & UNLINED.

AREA FOR WELL LOCATION IS 1.33 ACRES.

REFERENCE DRAWINGS ARE:

M - 20091



SCALE 1" = 50'

50' 0 50' 100'

CLAY BASIN UNIT WELL NO. 47-S

DRWG. NO. M.- 20092

6/7/82 KVB

July 9, 1982

WEXPRO COMPANY

Surface Use and Operations Plan

Site Specific Items

Clay Basin Unit Wells 43-S through 60-S

Well 47-S: A low water crossing will be constructed to cross Clay Basin Creek.

Well 52-S: The powerline will be relocated to eliminate the safety hazard during drilling. The reserve pit will be designed so that it will be kept out of the wash on the south side of the location.

Well 58-S: The access road will be located so that the section corner will be preserved.

Only the three wells identified above require site specific attention. Operations on the remaining 15 wells are covered in the Master Surface Use and Operations Plan.

** FILE NOTATIONS **

DATE: July 21, 1982

OPERATOR: Flexpro Company

WELL NO: Clay Basin Unit #47-5

Location: Sec. 27 T. 3N R. 24E County: Daggett

File Prepared: ☐ Entered on N.I.D: ☐

Card Indexed: ☐ Completion Sheet: ☐

API Number 43-009-30043

CHECKED BY:

Petroleum Engineer:

Director:

Administrative Aide: Sue Stonage

APPROVAL LETTER:

Bond Required: ☑ Survey Plat Required: ☐

Order No. Rule C-3 ☐

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

Lease Designation Fed Plotted on Map ☐

Approval Letter Written ☐

Hot Line ☑ P.I. ☑

NOTICE OF SPUD

Company: Wexpro

Caller:

Phone: Dubetch — 307-382-9791

Well Number: Clay Basin 47-S

Location: NENW 27-3N-24E

County: Daggett State: Utah

Lease Number: SL-045053-a

Lease Expiration Date:

Unit Name (If Applicable): Clay Basin

Date & Time Spudded: 9-5-82 1:00 A.m.

Dry Hole Spudder/Rotary:

Details of Spud (Hole, Casing, Cement, etc.) 12¼" - to 17½ -

Rotary Rig Name & Number: Brinkerhoff Signal-85

Approximate Date Rotary Moves In:

FOLLOW WITH SUNDRY NOTICE

Call Received By: KR

Date: 9-7-82

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: WEXPRO

WELL NAME: Clay Basin Unit Well #47-S

SECTION NENW 27 TOWNSHIP 3 N RANGE 24 E COUNTY Daggett

DRILLING CONTRACTOR Brinkerhoff Signal

RIG # 85

SPUDDED: DATE 9-5-82

TIME 1:00 AM

HOW Rotary

DRILLING WILL COMMENCE

REPORTED BY Paul Zubatch

TELEPHONE # 307-382-9791

DATE 9-7-82 SIGNED Norm

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

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 Gas Storage

2. NAME OF OPERATOR
Wexpro Company

3. ADDRESS OF OPERATOR
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: NE NW 1219' FNL, 1380' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
SL - 045053-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
-

7. UNIT AGREEMENT NAME
Clay Basin Gas Storage Agreement

8. FARM OR LEASE NAME
Unit

9. WELL NO.
47-S

10. FIELD OR WILDCAT NAME
Clay Basin Gas Storage

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
27-3N-24E., SLB&M

12. COUNTY OR PARISH: Daggett
13. STATE: Utah

14. API NO.
43-009-30043

15. ELEVATIONS (SHOW DF, KDB, AND WD)
KB 6462.28' GR 6411'

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

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other) Supplementary History		X

(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.)*

Depth 6040', logging.

Spudded September 5, 1982 at 1:00 a.m., landed 13-3/8" OD, 54.5#, K-55, 8rd thd, ST&C casing at 347.23' KBM, set with 400 sacks type G cement treated with 3% calcium chloride and 1/4# flocele per sack, cement in place September 6, 1982 at 12:30 a.m.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lee Martin TITLE Asst Drlg Supt DATE September 16, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

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 Gas Storage
2. NAME OF OPERATOR: Wexpro Company
3. ADDRESS OF OPERATOR: P. O. Box 458, Rock Springs, Wyoming 82901
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: NE NW 1219' FNL, 1380' FWL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE: SL - 045053-a
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME: Clay Basin Gas Storage Agreement
8. FARM OR LEASE NAME: Unit
9. WELL NO.: 47-S
10. FIELD OR WILDCAT NAME: Clay Basin - Dakota
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 27-3N-24E., SLB&M
12. COUNTY OR PARISH: Daggett
13. STATE: Utah
14. API NO.: 43-009-30043
15. ELEVATIONS (SHOW DF, KDB, AND WD): KB 6462.28' GR 6411'

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

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	☐	☐
FRACTURE TREAT	☐	☐
SHOOT OR ACIDIZE	☐	☐
REPAIR WELL	☐	☐
PULL OR ALTER CASING	☐	☐
MULTIPLE COMPLETE	☐	☐
CHANGE ZONES	☐	☐
ABANDON*	☐	☐
(other) Supplementary History		X

(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.)*

TD 6116', PBD 5959', rotary released 9-17-82, well shut in.

Landed 7" OD, 23#, and 9-5/8" OD, 36#, K-55, 8rd thd, ST&C casing at 6021.67' KBM, set with 465 sacks 50-50 Pozmix cement with 2% gel and 18% salt, good returns throughout, cement in place 3:15 a.m. on 9-17-82.
Rigged up work over unit, perforated Dakota with 2 holes per foot from 5790-5799', 5802-5807', 5815-5844', and 5909-5927' KBM, set packer at 5690', landed 4-1/2" tubing at 5704.99', work over released 9-26-82.
Final report.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Lee Martin TITLE Asst Drlg Supt DATE October 1, 1982

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other Gas Storage

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Wexpro Company

3. ADDRESS OF OPERATOR: P. O. Box 458, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: NE NW 1219' FNL, 1380' FWL
At top prod. interval reported below
At total depth

API #: 43-009-30043

14. PERMIT NO.: -
DATE ISSUED: -

5. LEASE DESIGNATION AND SERIAL NO.: SL - 045053-a
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: -
7. UNIT AGREEMENT NAME: Clay Basin Gas Storage
8. FARM OR LEASE NAME: Unit
9. WELL NO.: 47-S
10. FIELD AND POOL, OR WILDCAT: Clay Basin - Dakota
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 27-3N-24E., SLB&M
12. COUNTY OR PARISH: Daggett
13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
9-5-82	9-15-82	9-26-82	KB 6426.28' GR 6411'	-

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
6035	5959		→	0-6035	-

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
5790-5799', 5802-5807', 5815-5844', 5909-5927' - Dakota

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DLL, CNL/FDC

27. WAS WELL CORED: Yes ✓

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
20	line pipe	20	30	1-3/4 yds concrete	0
13-3/8	54.5	347.23	17-1/2	400	0
7 & 9-5/8	23 & 36	6021.67	8-3/4	465	0

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
4-1/2	5704.99	5690

31. PERFORATION RECORD (*Interval, size and number*)
5790-5799', 5802-5807', 5815-5844',
5909-5927', jet, 2 holes per foot

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION: | PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*): Gas Storage | WELL STATUS (*Producing or shut-in*): Shut in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

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
Logs as above

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE Director, Petroleum Engrg DATE Oct. 1, 1982

*(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

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Log tops:		
Mancos	0'	
Frontier	5,443	
Mowry	5,623	
Dakota	5,784	
Morrison	5,935'	

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

Core Services, Inc.

TerraTek

October 6, 1982

Mountain Fuel Resources
P.O. Box 11368
Salt Lake City, UT 84139

Attn: Mr. Roger Fallon

Subject: Core Analysis Data; No. 47 S Well; Daggett County, Utah;
TTCS File No. 232

Gentlemen:

Diamond coring equipment and water base mud were used to obtain 4.0-inch diameter cores from the Dakota formation between 5785 and 5905 feet in the subject well. A representative of Terra Tek Core Services received the cores at the wellsite where they were preserved in plastic polytubing and transported to our Salt Lake City laboratory for routine retort analysis.

A core gamma log was recorded and, along with permeability, porosity, grain density and fluid saturation plots is presented on the enclosed Teklog.

Residual fluid removal was accomplished by the controlled temperature retort technique. Porosities were determined by Boyle's law (Helium) grain volumes and Archimedes (Mercury) bulk volumes on one-inch diameter plug samples. Permeabilities to Nitrogen were measured on these same plug samples using an orifice manometer and traveling miniscus to monitor downstream flow. As requested a few scattered vertical permeabilities were measured in the more shaley intervals.

The data resulting from this analysis is tabulated on the following pages. Following this data is a summary reflecting average data by zones based on permeability, porosity, and fluid saturation variations.

The cores are temporarily being stored in our Salt Lake City warehouse awaiting additional instructions.

We sincerely appreciate this opportunity to be of service.

Very truly yours,

Jack R. Good

Jack R. Good
Laboratory Director

JRG:lv

• 360 Wakara Way • Salt Lake City, Utah 84108 • (801) 584-2480
• 920 Central Avenue • Suite #2 • Billings, Montana 59102 • (406) 256-0371

TerraTek Core Services, Inc.

MOUNTAIN FUEL RESOURCES

No. 47 S Well
Daggett County, Utah

TTCS File No. 232

Core No.	Interval	Formation
1	5785 - 5797	Dakota
2	5797 - 5808	Dakota
3	5808 - 5814	Dakota
4	5814 - 5857	Dakota
5	5857 - 5905	Dakota

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TERRA TEK CORE SERVICES INC.

360 Wakara Way, SLC Utah 84108 (801) 584-2480

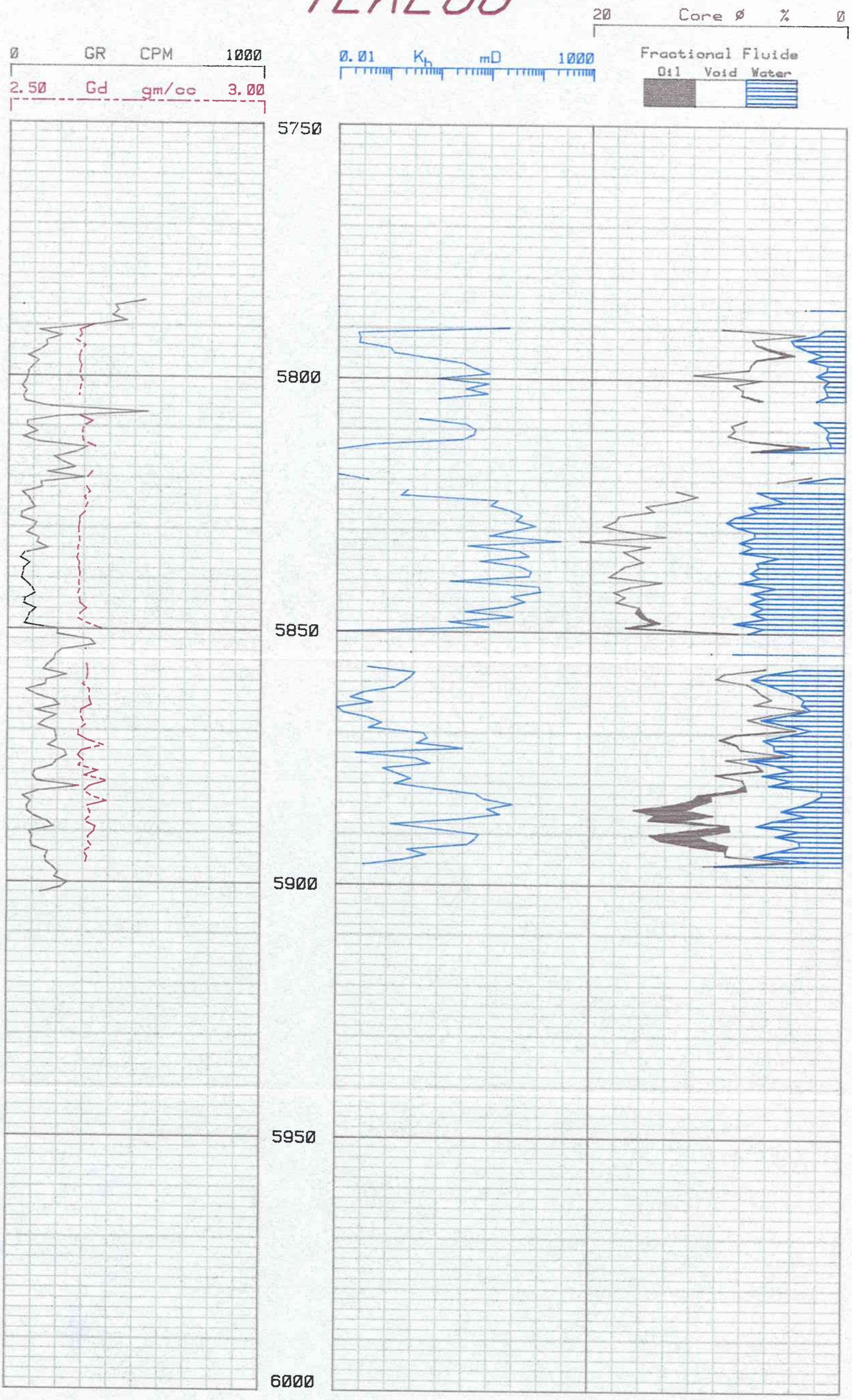
MOUNTAIN FUEL RESOURCES

47 S

TEKLOG

17 Nov 1982

TTCS No. 232



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Terra Tek Core Services

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MOUNTAIN FUEL RESOURCES

Well:	47 S	State:	Utah	Date:	18 Nov 1982
Field:	Clay Basin	County:	Dassett	TTCS File #:	232
Drilling Fluid:	Water Base Mud	Location:	Sec. 27 - T3N - R24E	Elevation:	

RETORT ANAYLYSIS - BOYLES LAW POROSITY

Sample Number	Depth (feet)	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
	DAKOTA FORMATION							
	5785.0 - 5786.0							SHALE
1	5786.0-87.0	<0.01	<0.01	3.2	0.0	88.2	2.53	Sh, sl/slty,carb,
	5787.0 - 5790.0							SHALE
2	5790.0-91.0	29		9.7	0.0	17.0	2.67	Sd,fg,sl/dol
3	5791.0-92.0	0.02		3.2	0.0	70.6	2.64	Sd,vfg,slty,shy
4	5792.0-93.0	0.03		7.4	0.0	58.5	2.64	Sd,vfg,slty,shy
5	5793.0-94.0	0.03		7.1	0.0	57.2	2.63	Sd,vfg,slty,sl/shy
6	5794.0-95.0	0.11		6.0	6.9	50.4	2.65	Sd,vfg,slty,sl/shy
7	5795.0-96.0	0.13		4.5	10.1	40.1	2.64	Sd,vfg,slty
8	5796.0-97.0	0.67		7.1	0.0	42.0	2.64	Sd,vfg,slty
9	5797.0-98.0	3.7		7.5	0.0	19.1	2.64	Sd,fg,sl/slty
10	5798.0-99.0	6.1		7.6	0.0	19.4	2.64	Sd,fg,sl/slty
11	5799.0-00.0	12		12.0	0.0	19.2	2.64	Sd,fg,sl/slty
12	5800.0-01.0	1.1		6.7	0.0	19.6	2.64	Sd,fg,sl/slty
13	5801.0-02.0	11		8.8	0.0	19.5	2.64	Sd,fg,sl/slty
14	5802.0-03.0	4.1		8.1	0.0	18.8	2.64	Sd,fg,sl/slty
15	5803.0-04.0	11		8.2	0.0	17.0	2.64	Sd,fg,sl/slty
16	5804.0-05.0	1.2		6.9	4.6	33.6	2.64	Sd,f-mg,slty

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MOUNTAIN FUEL RESOURCES Date: 18 Nov 1982 TTCS File #: 232

Well: 47 S

RETORT ANAYLYSIS - BOYLES LAW POROSITY

Sample Number	Depth (feet)	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
	5805.0 - 5808.0							SHALE
17	5808.0-09.0	0.40		7.8	0.0	31.8	2.64	Sd,vfg,slty
18	5809.0-10.0	4.2		9.0	0.0	19.0	2.66	Sd,vfg,sl/slty
19	5810.0-11.0	6.5		8.7	0.0	14.7	2.65	Sd,vfg,sl/slty
20	5811.0-12.0	6.0		9.2	0.0	16.0	2.64	Sd,vfg,sl/slty
21	5812.0-13.0	3.6		7.6	0.0	16.6	2.64	Sd,vfg,sl/slty
22	5813.0-14.0	0.05		3.5	18.4	31.5	2.65	Sd,vfg,slty
23	5814.0-15.0	<0.01	<0.01	7.4	0.0	90.4	2.67	Sd,vfg,slty,shy
	5815.0 - 5819.0							SHALE
24	5819.0-20.0	<0.01		2.7	0.0	42.9	2.66	Sd,vfg,slty
25	5820.0-21.0	0.04		5.3	0.0	68.5	2.66	Sd,vfg,slty,shy
	5821.0 - 5822.0							SHALE
26	5822.0-23.0	0.24		13.3	0.0	52.4	2.65	Sd,vfg,slty
27	5823.0-24.0	0.18		11.6	0.0	50.9	2.66	Sd,vfg,slty,sh lam
28	5824.0-25.0	18		13.2	0.0	36.1	2.65	Sd,fg,sl/slty
29	5825.0-26.0	13		15.7	0.0	48.2	2.66	Sd,mg,sl/slty,sl/pyr
30	5826.0-27.0	31		15.0	0.0	45.8	2.65	Sd,mg
31	5827.0-28.0	54		17.8	0.0	48.6	2.65	Sd,mg
32	5828.0-29.0	41		18.1	0.0	51.7	2.64	Sd,mg
33	5829.0-30.0	99		19.1	0.0	45.0	2.64	Sd,mg
34	5830.0-31.0	34		17.2	0.0	41.3	2.64	Sd,mg
35	5831.0-32.0	12		14.1	0.0	50.4	2.64	Sd,mg

Terra Tek Core Services

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MOUNTAIN FUEL RESOURCES Date: 18 Nov 1982 TTCS File #: 232

Well: 47 S

RETORT ANAYLYSIS - BOYLES LAW POROSITY

Sample Number	Depth (feet)	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
36	5832.0-33.0	320		20.9	0.0	39.7	2.64	Sd,mg
37	5833.0-34.0	4.6		15.3	0.0	47.3	2.64	Sd,f-mg,slty
38	5834.0-35.0	49		17.4	0.0	47.5	2.64	Sd,mg
39	5835.0-36.0	75		16.6	0.0	31.2	2.64	Sd,mg
40	5836.0-37.0	7.9		15.9	0.0	43.8	2.64	Sd,f-mg,sl/slty
41	5837.0-38.0	48		17.4	0.0	38.8	2.64	Sd,f-mg
42	5838.0-39.0	82		17.9	0.0	41.5	2.64	Sd,mg
43	5839.0-40.0	76		18.6	0.0	35.9	2.64	Sd,mg
44	5840.0-41.0	2.1		14.4	0.0	57.7	2.64	Sd,f-mg,slty
45	5841.0-42.0	93		16.9	0.0	32.1	2.64	Sd,f-mg
46	5842.0-43.0	130		18.2	0.0	40.4	2.64	Sd,f-mg
47	5843.0-44.0	34		17.3	0.0	35.9	2.64	Sd,f-mg
48	5844.0-45.0	62		18.0	0.0	41.3	2.64	Sd,f-mg
49	5845.0-46.0	27		16.2	0.0	39.2	2.64	Sd,f-mg
50	5846.0-47.0	4.1		16.5	2.7	44.6	2.65	Sd,f-mg,slty
51	5847.0-48.0	37		16.0	2.1	38.5	2.64	Sd,f-mg
52	5848.0-49.0	2.0		14.9	2.8	58.5	2.64	Sd,f-mg,slty
53	5849.0-50.0	12		17.3	2.7	36.8	2.66	Sd,f-mg,slty
54	5850.0-51.0	<0.01	<0.01	8.4	0.0	90.8	2.68	Sd,vfg,slty,shy
	5851.0 - 5854.0							SHALE, SLTY
55	5854.0-55.0	0.28	0.17	10.5	0.0	83.9	2.65	Sd,vfg,slty,shy
	5855.0 - 5857.0							SLTSTN, SHY

Terra Tek Core Services

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MOUNTAIN FUEL RESOURCES Date: 18 Nov 1982 TTCS File #: 232

Well: 47 S

RETORT ANAYLYSIS - BOYLES LAW POROSITY

Sample Number	Depth (feet)	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
56	5857.0-58.0	0.04		6.2	0.0	57.4	2.66	Sd,f-vfg,slty
57	5858.0-59.0	0.34		9.4	0.0	64.9	2.66	Sd,f-vfg,slty
58	5859.0-60.0	0.27		10.1	0.0	72.1	2.66	Sd,f-vfg,slty
59	5860.0-61.0	0.19		7.7	0.0	78.7	2.66	Sd,f-vfg,slty
60	5861.0-62.0	0.13		6.9	0.0	72.3	2.65	Sd,f-vfg,slty
61	5862.0-63.0	0.03		6.5	0.0	58.1	2.66	Sd,vfg,slty,sl/lmy
62	5863.0-64.0	0.02		5.7	0.0	55.1	2.66	Sd,vfg,slty,sl/lmy
63	5864.0-65.0	0.05		7.1	0.0	47.2	2.66	Sd,vfg,slty,sl/lmy
64	5865.0-66.0	<0.01		3.1	0.0	83.8	2.67	Sd,vfg,slty,sl/lmy
65	5866.0-67.0	0.01		5.7	0.0	78.7	2.65	Sd,vfg,slty,lmy
66	5867.0-68.0	0.04		7.6	0.0	86.3	2.64	Sd,vfg,slty,sl/shy
67	5868.0-69.0	0.08		6.0	0.0	77.2	2.65	Sd,vfg,slty,sl/shy
68	5869.0-70.0	0.04		3.8	0.0	67.7	2.65	Sd,vfg,slty,sl/lmy
69	5870.0-71.0	0.67		8.5	1.1	52.2	2.64	Sd,f-vfg,slty,sl/shy
70	5871.0-72.0	0.78		9.8	1.2	65.1	2.64	Sd,f-vfg,slty
71	5872.0-73.0	0.38		8.4	0.0	65.3	2.66	Sd,f-vfg,slty
72	5873.0-74.0	3.9†		8.1	0.0	67.5	2.69	Sd,f-vfg,slty,sl/shy,sl/pyr
73	5874.0-75.0	0.02		4.7	0.0	80.2	2.65	Sd,f-vfg,slty
74	5875.0-76.0	0.36		9.3	0.0	80.8	2.64	Sd,f-vfg,slty,sh lam
75	5876.0-77.0	0.70†		6.9	0.0	76.9	2.65	Sd,f-vfg,slty,sh lam
76	5877.0-78.0	0.08		6.5	1.5	61.4	2.64	Sd,f-vfg,slty,lig incl.
77	5878.0-79.0	0.15		10.1	0.0	63.4	2.68	Sd,fg,slty,sl/pyr

† Horizontal dehydration crack

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MOUNTAIN FUEL RESOURCES Date: 18 Nov 1982 TTCS File #: 232

Well: 47 S

RETORT ANAYLYSIS - BOYLES LAW POROSITY

Sample Number	Depth (feet)	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)	Lithology
78	5879.0-80.0	0.37		8.0	0.0	51.5	2.65	Sd,f-vfg,slty
79	5880.0-81.0	0.14		7.8	0.0	76.0	2.70	Sd,f-vfg,slty,sl/pyr
80	5881.0-82.0	1.0		8.5	10.0	20.1	2.66	Sd,f-vfg,slty
81	5882.0-83.0	7.1		11.4	8.3	15.2	2.65	Sd,fg,slty,sl/lmy
82	5883.0-84.0	10		11.9	12.4	20.7	2.67	Sd,fg,slty,sl/lmy
83	5884.0-85.0	37		13.5	14.0	25.9	2.70	Sd,fg,sl/lmy,sl/pyr
84	5885.0-86.0	12		16.5	24.7	29.6	2.66	Sd,fg,sl/slty,sl/lmy
85	5886.0-87.0	21		14.8	30.8	19.6	2.66	Sd,fg,sl/slty,sl/lmy
86	5887.0-88.0	3.6		15.4	15.6	35.8	2.66	Sd,fg,slty,sl/lmy
87	5888.0-89.0	0.11		9.0	0.0	76.0	2.65	Sd,f-vfg,slty,sh incl.
88	5889.0-90.0	1.2		12.2	26.5	28.3	2.67	Sd,f-vfg,slty,sl/pyr
89	5890.0-91.0	8.0		15.3	24.4	35.1	2.67	Sd,f-vfg,slty
90	5891.0-92.0	6.7		14.5	25.7	24.2	2.66	Sd,f-vfg,slty
91	5892.0-93.0	4.8		12.1	25.2	28.0	2.66	Sd,f-vfg,slty
92	5893.0-94.0	0.24		9.3	0.0	56.9	2.67	Sd,f-vfg,slty,sh incl.
93	5894.0-95.0	0.75		9.3	0.0	75.6	2.65	Sd,f-vfg,slty,sh incl.
94	5895.0-96.0	0.20		4.3	0.0	61.0	2.66	Sd,f-vfg,slty,sl/lmy,sh incl.
95	5896.0-97.0	0.03	0.03	11.0	0.0	92.5	2.66	Sd,vfg,slty,shy
	5897.0 - 5902.5							SHALE
	5902.5 - 5905.0							NOT RECOVERED

Terra Tek Core Services

University Research Park · 360 Wakara Way · Salt Lake City, Utah 84108 · (801) 584-2480 · TWX. 910-925-5284

MOUNTAIN FUEL RESOURCES

Well:	47 S	State:	Utah	Date:	18 Nov 1982
Field:	Clay Basin	County:	Dassett	TTCS File #:	232
Drilling Fluid:	Water Base Mud	Location:	Sec. 27 - T3N - R24E	Elevation:	

RETORT ANAYLYSIS - BOYLES LAW POROSITY
DATA SUMMARY

Zone Number	Depth Interval (feet)	Number of samples	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)
DAKOTA FORMATION								
1	5790.0-797.0	7	4.3 [11]		6.4 [2.1]	2.4 [4.2]	48.0 [17.2]	2.64 [0.0]
2	5797.0-805.0	8	6.3 [4.6]		8.2 [1.7]	0.6 [1.6]	20.8 [5.2]	2.64 [0.0]
3	5808.0-815.0	7	3.5 [2.7]		7.6 [1.9]	2.6 [7.0]	31.4 [27.0]	2.65 [0.0]
4	5819.0-821.0	2	0.02 [0.02]		4.0 [1.9]	0.0 [0.0]	55.7 [18.1]	2.66 [0.0]
5	5822.0-824.0	2	0.21 [0.04]		12.4 [1.2]	0.0 [0.0]	51.7 [1.1]	2.66 [0.0]
6	5824.0-855.0	28	49 [63]	0.09 [0.12]	16.2 [2.5]	0.4 [0.9]	46.2 [13.5]	2.64 [0.0]

[ ] Sample standard deviation

Terra Tek Core Services

University Research Park · 360 Wakara Way · Salt Lake City, Utah 84108 · (801) 584-2480 · TWX. 910-925-5284

MOUNTAIN FUEL RESOURCES Date: 18 Nov 1982 TTCS File #: 232

Well: 47 S

DATA SUMMARY

Zone Number	Depth Interval (feet)	Number of samples	Permeability Horz (md)	Permeability Vert (md)	Porosity (%)	Saturation Oil (%)	Saturation H2O (%)	Grain Density (gm/cc)
7	5857.0-881.0	24	0.21 [0.23]		7.2 [1.9]	0.2 [0.4]	68.3 [11.1]	2.66 [0.0]
8	5881.0-889.0	8	11 [12]		12.6 [2.9]	14.5 [9.6]	30.4 [19.6]	2.66 [0.0]
9	5889.0-893.0	4	5.2 [3.0]		13.5 [1.6]	25.5 [0.9]	28.9 [4.5]	2.67 [0.0]
10	5893.0-897.0	4	0.31 [0.31]		8.5 [2.9]	0.0 [0.0]	71.5 [16.1]	2.66 [0.0]

[ ] Sample standard deviation

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

November 9, 1982

Wexpro Company
P. O. Box 458
Rock Springs, Wyoming 82901

Re: Well No. Clay Basin Unit #43-S
Sec. 26, T. 3N, R. 24E.
Daggett County, Utah

Well No. Clay Basin Unit #47-S
Sec. 27, T. 3N, R. 24E.
Daggett County, Utah

Gentlemen:

This office received a Well Completion Report on both of the above referenced wells stating that these wells were cored. If this is the case, your company is required to submit to this office a copy of those cores.

Thank you for your above cooperations to the above matter.

Sincerely,

DIVISION OF OIL, GAS AND MINING

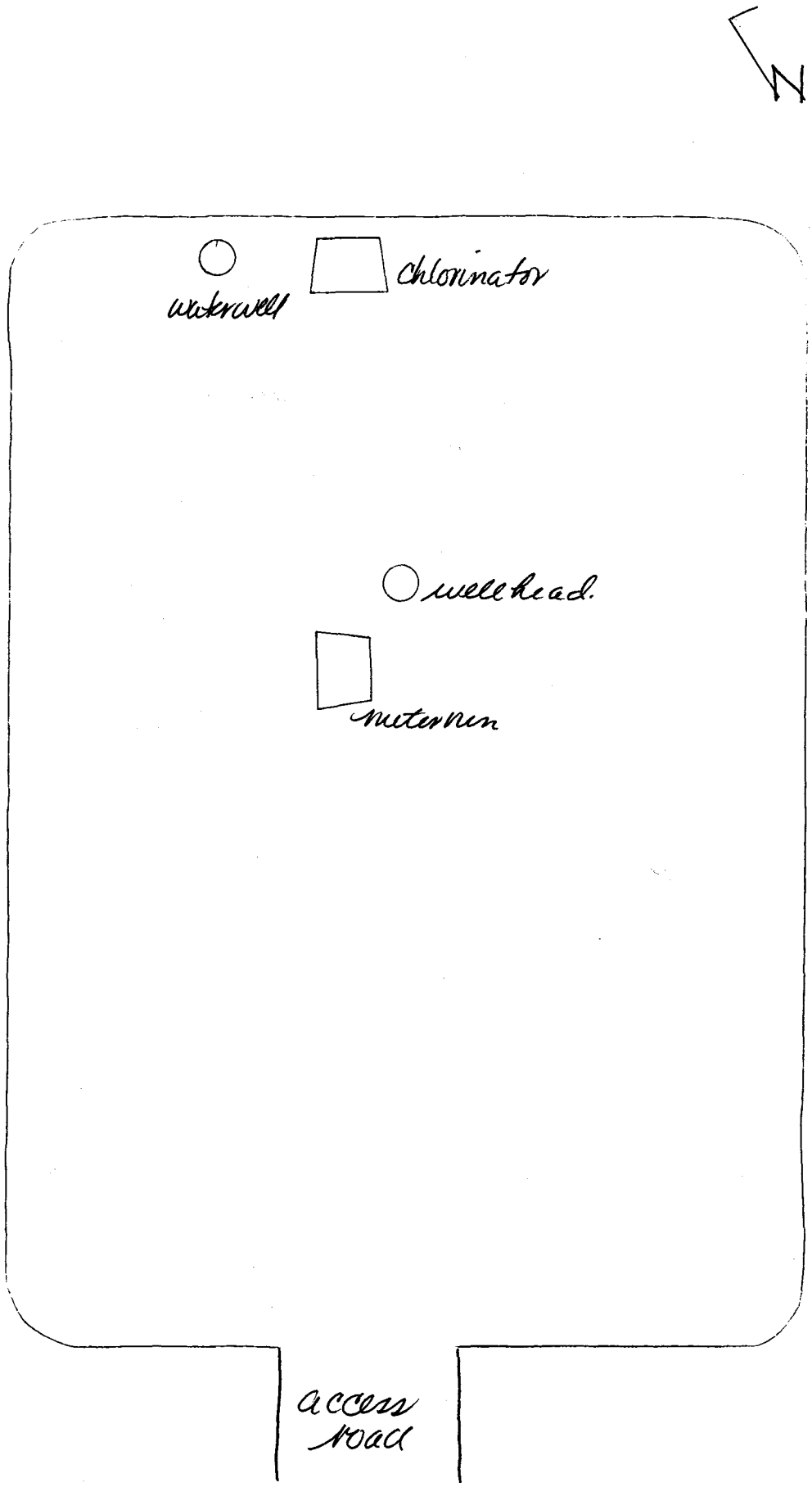
Cari Furse
Clerk Typist

CF/cf

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Clay Basin U # 47-S | Sec 27, 3N, 24E | Kimbly 14 June 88



NATIONAL 42-381 50 SHEETS 5 SQUARE 42-382 100 SHEETS 5 SQUARE 42-389 200 SHEETS 5 SQUARE Made in U.S.A.

QUESTAR PIPELINE COMPANY

79 SOUTH STATE STREET • P. O. BOX 11450 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2400

June 23, 1988

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED
#P 879 571 459

Bureau of Land Management
Utah State Office
CFS Financial Center
324 S. State Street
Salt Lake City, UT 84111-2303

Re: Name Change
Mountain Fuel Resources, Inc.
to Questar Pipeline Company

Gentlemen:

Enclosed for your files and information is a certified copy of the Articles of Amendment to the Articles of Incorporation of Mountain Fuel Resources, Inc. dated March 7, 1988, indicating that Mountain Fuel Resources, Inc. changed its name to Questar Pipeline Company.

Questar Pipeline Company holds interests in the following Federal Oil and Gas Leases in Utah:

No wells on lease held. w/in CA — U-9712-A - Questar Energy Co 100%
CA well - RT & OR's Mtn. Fuel Resources — U-11246 RT Asgnmt pending to "Questar Energy Co"
SLC-045051(A) OR'S
SLC-045051(B)
SLC-045053(A) OR'S
SLC-045053(B)
SLC-062508 - OR'S
SLC-070555 - OR'S
SLC-070555(A) - OR'S
? Agreement No. 14-08-0001-16009
(Clay Basin Gas Storage Agreement)
Vernal

Please note and adjust your records in accordance with the above and furnish verification of your receipt of this notice to the undersigned.

Sincerely,

J. B. Neese
Senior Landman

JBN/sdg

Enclosure

List of Leases

Overriding Royalties	Operating Rights
U-09712-A	SL-045051-A & B
U-011246	SL-045053-A & B
	SL-062508
	SL-070555
	SL-070555-A
	SL-045049-A & B

Clay Basin Gas Storage Agreement
Agreement No. 14-08-0001-16009

3100
U-09712-A
et al
(U-942)
C. Seare
3/9/89

DECISION

Questar Pipeline Company	:	Oil and Gas Leases
P.O. Box 11450	:	U-09712-A et al
Salt Lake City, Utah 84147	:	

Corporate Name Change Recognized

Acceptable evidence has been received establishing that Mountain Fuel Resources, Inc. has changed their name to Questar Pipeline Company. Accordingly, the surviving company, Questar Pipeline Company, is recognized as holding all interests in Federal oil and gas leases which were held by Mountain Fuel Resources, Inc. We are changing our records with respect to the attached listing of oil and gas leases. If there are any other leases that will be affected, please contact this office.

/s/ M. Willis
ACTING Chief, Minerals
Adjudication Section

Enclosure
List of Leases

cc: All District Offices, Utah
MMS, AFS
MMS, BRASS
920, Teresa Thompson
Clay Basin Unit File

CSeare:sl 3/9/89:1642f

RECEIVED
JAN 2 8 2004
DIV. OF OIL, GAS & MINING

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold) — Designation of Agent/Operator

X Operator Name Change — Merger

The operator of the well(s) listed below has changed, effective: **3/7/1988**

FROM: (Old Operator):	**TO:** (New Operator):
N1070-Wexpro Company PO Box 45360 Salt Lake City, UT 84145-0360 Phone: 1-(801) 534-5267	N7560-Questar Pipeline Company PO Box 11450 Salt Lake City, UT 84147 Phone: 1-(801) 530-2019

CA No. **Unit:**

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
CLAY BASIN UNIT 46-S	26	030N	240E	4300930042	1025	Federal	GS	A
CLAY BASIN UNIT 55-S	26	030N	240E	4300930051	1025	Federal	GS	A
CLAY BASIN UNIT 56-S	26	030N	240E	4300930052	1025	Federal	GS	A
CLAY BASIN U 4 (ES LAUZER 1)	27	030N	240E	4300915628	1025	Federal	GS	A
CLAY BASIN UNIT 34-S	27	030N	240E	4300930025	1025	Federal	GS	A
CLAY BASIN UNIT 37-S	27	030N	240E	4300930028	1025	Federal	GS	A
CLAY BASIN UNIT 38-S	27	030N	240E	4300930029	1025	Federal	GS	A
CLAY BASIN UNIT 47-S	27	030N	240E	4300930043	1025	Federal	GS	A

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 1/13/2004
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 1/13/2004
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 1/14/2004
4. Is the new operator registered in the State of Utah: YES Business Number: 649172-0142
5. If **NO**, the operator was contacted contacted on: ____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 3/9/1989

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC"** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 1/29/2004
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 1/29/2004
3. Bond information entered in RBDMS on: 1/29/2004
4. Fee wells attached to bond in RBDMS on: 1/29/2004
5. Injection Projects to new operator in RBDMS on: n/a

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: 965003032

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: 965002976

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: n/a

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 965003033
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 1/29/2004

COMMENTS:

NEW ENTITY NUMBERS ASSIGNED FEBRUARY 2004

ACCT	OPERATOR NAME	API NUM.	Sec	Twnshp	Rng	WELL NAME	ENTITY	EFF DATE	REASON
N7560	Questar Pipeline Co	4300930050	22	030N	240E	Clay Basin Unit 54-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915630	23	030N	240E	Clay Basin U 6 (RD Murphy 1	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915634	23	030N	240E	Clay Basin U 10 (1 CL Sparks	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930020	23	030N	240E	Clay Basin Unit 29-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930022	23	030N	240E	Clay Basin Unit 31-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930040	23	030N	240E	Clay Basin Unit 44-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930041	23	030N	240E	Clay Basin Unit 45-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930053	24	030N	240E	Clay Basin Unit 57-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930032	26	030N	240E	Clay Basin Unit 41-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930033	26	030N	240E	Clay Basin Unit 42-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930039	26	030N	240E	Clay Basin Unit 43-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930042	26	030N	240E	Clay Basin Unit 46-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930051	26	030N	240E	Clay Basin Unit 55-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930052	26	030N	240E	Clay Basin Unit 56-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915628	27	030N	240E	Clay Basin U 4 (ES Lauzer 1)	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930025	27	030N	240E	Clay Basin Unit 34-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930028	27	030N	240E	Clay Basin Unit 37-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930029	27	030N	240E	Clay Basin Unit 38-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930043	27	030N	240E	Clay Basin Unit 47-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage

Note to file: These entity numbers were changed to compliment the operator correction from 3/7/98