

**FILE LOCATIONS**

Entered in NID File ..... ✓  
Location Map Pinned ..... ✓  
Card Indexed ..... ✓

Checked by Chief  
Approval Letter  
Disapproval Letter .....

*P.W.B.*  
*10-26-72*

**COMPLETION DATA:**

Date Well Completed *3-28-74*

WV..... NW..... TA.....  
TN..... OS..... PA. ✓

Location Inspected .....

Bond released  
State or Fee Land .....

**LOGS FILED**

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
SBC Sonic GR..... Lat..... Mi-L..... Sonic.....  
CBLog..... CLog..... Others.....

Grynberg Mineral Point Fed. 1-4  
43-019-30182 S.4, T26S, R18E

Please Note: Well location is surveyed as 778' N of  $\frac{1}{2}$  Section line and 1862' FEL. The location in the printout is listed as 1862' FNL, 1862' FEL. This is a calculated location based on the location from the  $\frac{1}{2}$  section line (through  $\frac{1}{4}$  corners) to establish a location from the NE section corner. This locating method is valid for a normal section but is not valid for an atypical section. The true location from the ground position on the provisioned tops (1988 - photo date 1981) is more like  $\pm 2600$  FNL. This is the only well in this section.

CJ 1/14/92

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  
 Jack Grynberg and Associates

3. ADDRESS OF OPERATOR  
 1050 - 17th Street, Suite 1950, Denver, Colo. 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface 1862' FEL, 778' North of Half Section Line.  
 NE (SW/4 NE/4) Sec. 4, T 26 S - R 18 E  
 At proposed prod. zone  
 As above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 17 miles due west of Moab, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 1862'

16. NO. OF ACRES IN LEASE  
 1640

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 640

18. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 None

19. PROPOSED DEPTH  
 7200 ✓

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 5291' ungraded ground                      *Mississippian*

22. APPROX. DATE WORK WILL START\*  
 Nov. 15, 1973

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	32.3	550 ✓	300 sx (circ.) ✓
7-7/8	5-1/2	15.5 & 17.0	7200	350 sx

Proposed program is to drill to an estimated total depth of 7200 feet in the Mississippian formation. ✓ All substantial shows will be tested, and E-logs will be run. If commercial production is indicated, casing will be run, and a completion attempted.

Rotary tools will be equipped with adequate blowout preventers. This equipment ✓ will be pretested prior to drilling and tested daily with results recorded.

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 Cecil D. Gritz TITLE Petroleum Engineer DATE Oct. 22, 1973

(This space for Federal or State office use)

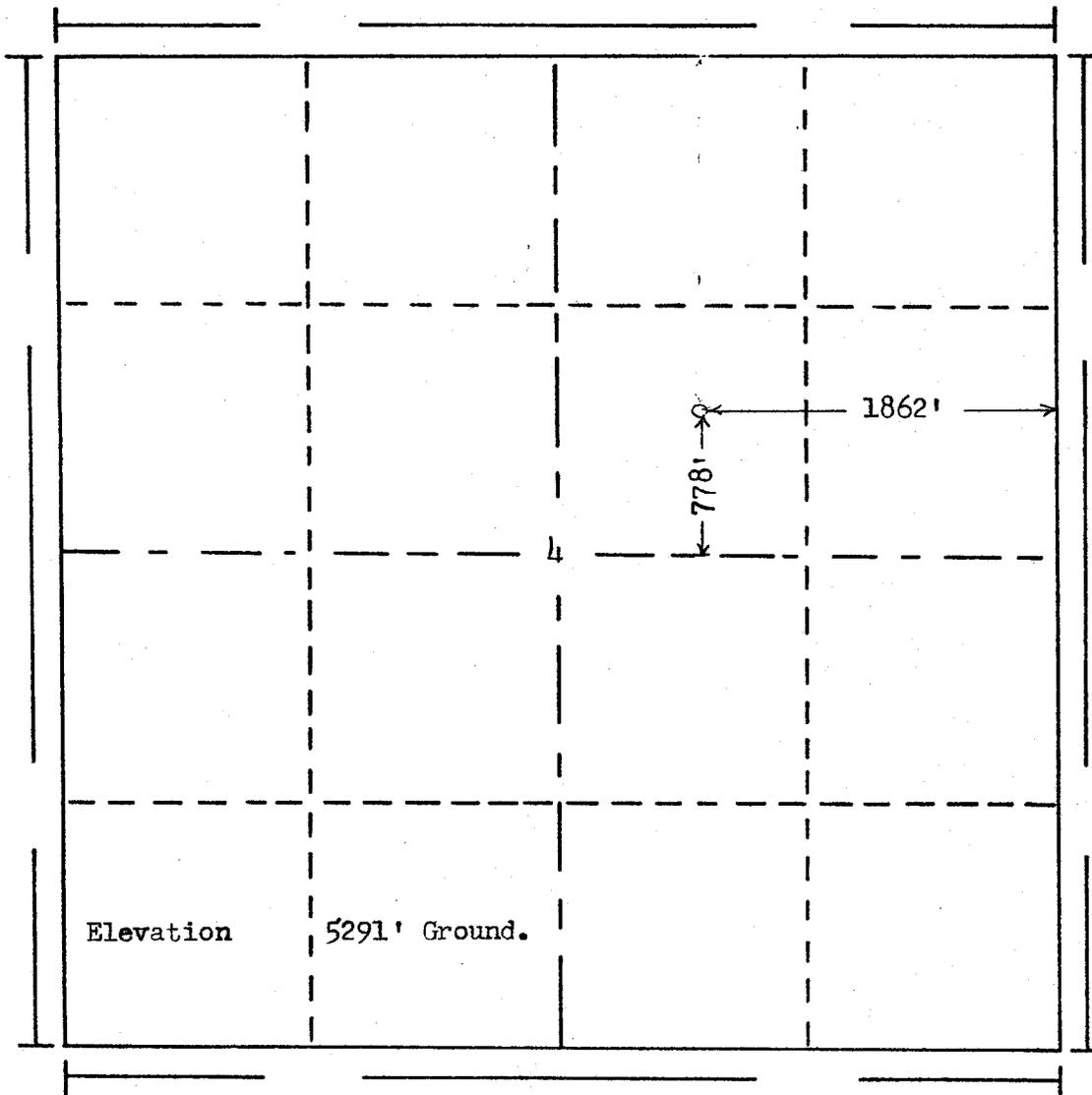
PERMIT NO. 43-019-307-182 APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:



R. 18 E.



T. 26 S.



Scale... 1" = 1000'

**Powers Elevation Company, Inc. of Denver, Colorado**  
 has in accordance with a request from Reed Waltman  
 for Jack Grynberg & Associates  
 determined the location of #1-4 Mineral Point  
 to be 778'FS & 1862'FE of the NE/4 Section 4 Township 26 S.  
 Range 18 E. of the 6th Principal Meridian  
 Grand County, Utah

I hereby certify that this plat is an  
 accurate representation of a correct  
 survey showing the location of  
 #1-4 Mineral Point

Date: 10-11-73

*Robert Sobell*  
 Licensed Land Surveyor No. 2827  
 State of Utah

REC'D OCT 17 1973

**JACK GRYNBERG AND ASSOCIATES**  
**PETROLEUM, GEOLOGICAL, GEOPHYSICAL AND MINING ENGINEERS**

1050 17th STREET • SUITE 1950 • DENVER, COLORADO 80202 • PHONE 303 - 572-1455

TELEX: 45-884  
CABLE: GRYNBERG  
DENVER, COLORADO

October 23, 1973

Utah Oil & Gas Conservation Board  
1588 West North Temple  
Salt Lake City, Utah 84110

Attn: Cleon B. Feight

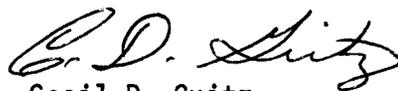
Re: #1-4 Federal Mineral Point  
T 26 S - R 18 E  
Sec. 4: SW/4 NE/4  
Grand County, Utah

Gentlemen:

We are sending you the enclosed copies of form 9-331C pertaining to our #1-4 Federal Mineral Point well in the above referenced area. Three copies have been filed with the U.S. Geological Survey and the appropriate number of copies has been sent to the Bureau of Land Management.

Very truly yours,

JACK GRYNBERG AND ASSOCIATES



Cecil D. Gritz  
Petroleum Engineer

CDG/dp

Enc.

October 26, 1973

Jack Grynberg & Associates  
1050 - 17th Street  
Suite 1950  
Denver, Colorado 80202

Re: Well No. Mineral Point  
Federal #1-4  
Sec. 4, T. 26 S, R. 18 E,  
Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted.

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

PAUL W. BURCHELL - Chief Petroleum Engineer  
HOME: 277-2890  
OFFICE: 328-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API number assigned to this well is 43-019-30182.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sd

cc: U.S. Geological Survey



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**PETROLEUM, GEOLOGICAL, GEOPHYSICAL AND MINING ENGINEERS**

1050 17th STREET • SUITE 1950 • DENVER, COLORADO 80202 • PHONE 303 - 572-1455

TELEX: 45-884  
CABLE: GRYNBERG  
DENVER, COLORADO

March 14, 1974

Cleon B. Feight  
Div. of Oil & Gas Conservation  
State of Utah  
1588 West North Temple  
Salt Lake City, Utah 84116

Re: Mineral Point  
Federal #1-4  
Sec. 4, T. 26 S - R. 18 E  
Grand County, Utah

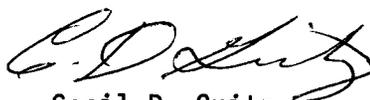
Dear Mr. Feight:

Enclosed please find two copies of our drilling report on the subject well which shows the work which we have completed to date.

We will keep you informed as this project progresses, and if you need anything further at this time, please advise.

Very truly yours,

JACK GRYNBERG AND ASSOCIATES



Cecil D. Gritz  
Petroleum Engineer

CDG:erc

JACK GRYNBERG AND ASSOCIATES  
Petroleum, Geological, Geophysical and Mining Engineers

1050 - 17th Street, Suite 1950  
Denver, Colorado 80202  
(303)572-1455

DAILY DRILLING REPORT

Prospect/Area Mineral Point  
Operator: Jack Grynberg & Associates County: Grand State: Utah  
Well Name: Mineral Point Federal Well No.: 1-4  
Location: NWNE Section: 4 Twp: 26 S Rge: 18 E  
Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_  
Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
Objective Zone(s): Mississippian Depth: 7200'  
Contractor: Calvert Western Exploration Company Rig #35  
Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-14-74 PRESENT OPERATION: 7037', drilling in Paradox Formation. Drilled 33' in past 24 hours.  
BIT SUMMARY: #19, 6-1/8" HTC OWV, in at 6903', out at 7023', drilled 120' in 30 hours, (#19, teeth-6, bearing-5, gauge-O.K., nozzle-3/16); #20, 6-1/8" HTC OWV, in at 7023'.  
MUD PROPERTIES: Wt. 10.5, Vis 38, FL 4.8, Filter Cake 1/32, PH 6.4, Oil 2%, WTR 80%, Salt 180,000, Plastic Vis 13, Yield Pt. 10, Gels 2/6, Solids 18, Sand 1%, 1% LCM  
MUD COST: Daily - \$31.25; Total - \$12,200.34.  
DRILL ASSEMBLY CHARACTERISTICS: 8-14,000# on bit, 80 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60' above bit.  
TIME BREAKDOWN: 17-1/2 hours drilling, 5-1/2 hours trips, 1 hour surveys & dressing bit & dress BOP  
SURVEYS: 11-1/2° at 7023'.  
NOTE: Installed shale shaker screen to attempt to get mud weight and solids percentage down. Drilling very slow, unable to run weight. No mud loss, no shows.
- 3-15-74 PRESENT OPERATION: 7088', drilling in Paradox Formation. Drilled 51' in past 24 hours.  
BIT SUMMARY: #20, 6-1/8" HTC OWVJ, in at 7023', drilled 65' in 27-1/2 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 42, FL 1.8, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 81%, Salt 156,000, Plastic Vis 16, Yield Pt. 18, Gels 4/11, Solids 18, Sand 1/2 of 1%, 0% LCM.  
MUD COST: Daily - \$370.00; Total - \$12,574.  
DRILL ASSEMBLY CHARACTERISTICS: 14-16,000# on bit, 80 RPM, 1350 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizer at 30' and 60'.  
TIME BREAKDOWN: 24 hours drilling.  
NOTE: Drilling slow in plastic zone, lime, shale dolomite and anhydrite. No mud loss, no shows.
- 3-16-74 PRESENT OPERATION: 7100', tripping (pulling button bit, wouldn't drill). Drilled 12' in past 24 hours. Paradox formation.  
BIT SUMMARY: #20 - 6-1/8" HTC OWVJ, in at 7023', out at 7091', drilled 68' in 28-1/4 hrs. Teeth 7, Bearings 6, Gauge okay, Nozzle size 3/16.  
#21 Rerun 6-1/8" Smith FS button bit, in at 7091', out at 7100', drilled 9' in 8-1/4 hours.  
MUD SUMMARY: Wt. 10.4, Vis 44, Fluid Loss 3.2, Filter Cake 1/32, Ph 6.1, Oil 2%, Water 80%, Salinity 178,000, Plastic Vis 18, Yield Pt. 9, Gels 3/8, Solids 18%, Sand 1/4 of 1%.  
MUD COST: Daily \$246.52; Total \$12,820.37.  
DRILL ASSEMBLY CHARACTERISTICS: 33 - 4-3/4" drill collars, 14-20,000# on bit, 45-55 RPM, 1300 pump psi, 3-pt. reamer, stabilizers 30' and 60' above bit.  
SURVEYS: 12° at 7060'.  
11-3/4° at 7100'.  
TIME BREAKDOWN: 11-1/4 drilling; 8-1/2 trips; 3/4 survey; 2 cut drilling line; 1-1/2 wait for replacement elevators.  
DETAILS: Smith FS button bit would not drill softer formation. Pulled out of hole.  
Formation Characteristics: Plastic zone, some hard lime, but mostly soft lime, anhydritic, dolomite.
- 3-17-74 PRESENT OPERATION: 7137', trip in Paradox formation. Drilled 37' in past 24 hours.  
BIT SUMMARY: #22, 6-1/8" HTC OWVJ, in at 7100, out at 7137, drilled 37' in 17-3/4 hours.  
MUD PROPERTIES: Wt. 10.5, Vis 43, FL 2.8, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 80%, Salt 173,000, Plastic Vis 17, Yield Pt. 14, Gels 4/11, Solids 19, Sand 1/2 of 1%.  
MUD COST: Daily - \$183.00; Total - \$13,004.00  
DRILL ASSEMBLY CHARACTERISTICS: 16-18,000# on bit, 75 RPM, 1300 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 17-3/4 hours drilling, 5-3/4 hours trips, 1/2 hour rig repair.  
SURVEYS: 12° at 7100.  
NOTE: Drilling slow plastic formation. No mud loss, no shows.
- 3-18-74 PRESENT OPERATION: 7200', drilling. Drilled 63' in past 24 hours.  
BIT SUMMARY: #23, 6-1/8" HTC OWVJ, in at 7137', drilled 63' in 19-3/4 hours, teeth-4, bearing-6, gauge-O.K., nozzle - 3/18 gauge.  
MUD PROPERTIES: Wt. 10.7, Vis 42, FL 6.2, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 80%, Salt 179,000, Plastic vis 14, Yield Pt. 9, Gels 3/7, Solids 18, Sand 1/2 of 1%.  
MUD COST: Daily - \$50.00; Total - \$4100.00  
DRILL ASSEMBLY CHARACTERISTICS: 12-18,000# on bit, 70 RPM, 1300 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19-3/4 hours drilling, 2-1/4 hours trips, 1 hour surveys, 1/2 hour circulate, 1/2 hour dress bit and BOP.  
SURVEYS: 11-3/4° at 7191'.  
NOTE: Top of salt section at 7150', approximately 20' of salt, 10' of shale, and another 10' of salt. Appears back into plastic zone again. Drilling slow.

JACK GRYNBERG AND ASSOCIATES  
Petroleum, Geological, Geophysical and Mining Engineers

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: NWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

3-19-74 PRESENT OPERATION: 7234', drilling. Drilled 34' in past 24 hours.  
BIT SUMMARY: #23, 6-1/8" HTC OWV, in at 7137', out at 7214', drilled 77' in 30 hours, teeth 6, bearing 6, gauge O.K., nozzle 3/16; #24, 6-1/8" HTC OWC, in at 7214', drilled 20' in 9 hours.  
MUD PROPERTIES: Wt 10.5, Vis 45, FL 3.2, Filter Cake 2/32, PH 6.0, Oil trace, WTR 82%, Salt 169,000, Plastic vis 17, Yield pt 16, Gels 6/4, Solids 18, Sand 0.6.  
MUD COST: Daily - \$147.00; Total - \$13,213.00.  
DRILL ASSEMBLY CHARACTERISTICS: 14-18,000# on bit, 70 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19-1/4 hours drilling, 4-3/4 hours trips.  
NOTE: No shows, no mud loss, drilling slow in limy shale and Clastics.

3-20-74 PRESENT OPERATION: 7254', drilling in Paradox formation. Drilled 20' in past 24 hours.  
BIT SUMMARY: #24, 6-1/8" HTC OWC, in at 7214', out at 7242', drilled 28' in 13-3/4 hours, teeth 3, bearing 5, gauge O.K., nozzle 3/16; #25, 6-1/8" HTC J-33, in at 7242', drilled 12' in 10 hours.  
MUD PROPERTIES: Wt 10.4, Vis 44, FL 4.4, Filter Cake 2/32, PH 6.0, Oil trace, WTR 82%, Salt 170,000, Plastic vis 16, Yield Pt 4, Gels 4/8, Solids 18, Sand 1/2 of 1%.  
MUD COST: Daily - \$240.35; Total - \$13,440.88  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 45 RPM, 1400 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 14-1/2 hours drilling, 7-1/2 hours trips, 1/4 hour surveys, 1-3/4 hour repair swivel.  
SURVEYS: 11-3/4 to 120 at 7242'.  
NOTE: Drilling slow, no mud loss, no shows. Developing little torque in drill pipe while rotating.

3-21-74 PRESENT OPERATION: 7280', drilling in Hermosa formation. Drilled 26' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33 Button, in at 5242', drilled 38' in 34 hours.  
MUD PROPERTIES: Wt 10.3, Vis 43, FL 7.4, Filter Cake 1/32, PH 5.9, Oil trace dead, WTR 82%, Salt 185,000, Plastic Vis 13, Yield pt. 12, Gels 2/10, Solids 17, Sand 1/4.  
MUD COST: Daily - \$233.00; Total - \$13,674.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 45-50 RPM, 1350 pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 24 hours drilling.  
NOTE: Drilling slow in clastics type formation, with some harder limes. Some formation too soft for button bit, others too hard for mill type bit. No show, no mud loss.

3-22-74 PRESENT OPERATION: 7346', drilling in Hermosa formation. Drilled 66' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33, in at 7242', drilled 104' in 57 hours.  
MUD PROPERTIES: Wt 10.3, Vis 40, FL 7.2, Filter Cake 1/32, PH 6.0, Oil trace dead, WTR 81%, Salt 170,000, Plastic Vis 13, Yield Pt 7, Gels 2/6, Solids 18, Sand 1/4.  
MUD COST: Daily - \$194.00; Total - \$13,867.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-22,000# on bit, 40-45 RPM, 1300 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 23 hours drilling, 1 hour surveys.  
SURVEYS: 11° at 7314'.  
NOTE: Showing 40 units of gas. Slight florescence.

3-23-74 PRESENT OPERATION: 7395', drilling in Hermosa formation. Drilled 49' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33, in at 7242', drilled 153' in 80-1/4 hours.  
MUD PROPERTIES: Wt 10.4, Vis 42, FL 5.2, Filter Cake 1/32, PH 6.0, Oil trace dead, WTR 82%, Salt 171,000, Plastic Vis 17, Yield Pt 9, Gels 4/9, Solids 17, Sand 0.7.  
MUD COST: Daily - \$433.00; Total - \$14,300.00  
DRILL ASSEMBLY CHARACTERISTICS: 22-25,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 23-1/4 hours drilling, 3/4 hours pump repair.  
NOTE: Carrying about 20 units of gas. No mud loss, no shows.

— JACK GRYNBERG AND ASSOCIATES —  
Petroleum, Geological, Geophysical and Mining Engineers

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-24-74 PRESENT OPERATION: 7422', drilling in Molas shale. Drilled 27' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', drilled 19' in 14 hours.  
MUD PROPERTIES: Wt 10.2, Vis 43, FL 5.8, FC 1/32, PH 6.0, Oil trace dead, WTR 82%, Salt 170,000, Plastic Vis 15, Yield Pt 12, Gels 3/9, Solids 17, Sand 1/4.  
MUD COST: Daily - \$294.00; Total - \$14,594.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19 hours drilling, 4-3/4 hours trips, 1/2 hour surveys.  
SURVEYS: 12-1/4° at 7403'.
- 3-25-74 PRESENT OPERATION: 7482', drilling in Mississippian formation. Drilled 60' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', drilled 79' in 37 hours.  
MUD PROPERTIES: Wt 10.3, Vis 41, FL 3.6, FC 1/32, PH 6.0, Oil trace, WTR 82%, Salt 164,000, Plastic Vis 19, Yield Pt 8, Gels 4/10, Solids 17, Sand 1/8.  
MUD COST: Daily - \$486.00; Total - \$15,079.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizer at 30'.  
TIME BREAKDOWN: 23 hours drilling, 1 hour surveys.  
SURVEYS: 11-3/4° at 7468'.  
NOTE: Top of Mississippian at 7425'. No shows, no mud loss.
- 3-26-74 PRESENT OPERATION: 7570', drilling in Leadville lime. Drilled 88' in past 24 hours.  
BIT SUMMARY: #26 - 6-1/8" HTC, J33, in at 7403', has drilled 167' in 60 hours.  
MUD PROPERTIES: Wt. 10.3, Vis. 41, FL 1.6, Filter Cake 1/32, Ph 6.0, Trace of dead oil, Gels 5/12, Solids 18%, Sand .8%.  
MUD COSTS: Daily \$174.97; Total \$15,254.44.  
DRILL ASSEMBLY CHARACTERISTICS: 33 - 4-3/4" drill collars, 20-24,000# on bit, 50 RPM, 1350 pump psi, 3 point reamer, stabilizers at 30 and 60' above bit.  
TIME BREAKDOWN: 23 hours drilling; 1 hour survey  
SURVEY: 12-1/4° at 7561'.  
DETAILS: No mud loss, no shows.
- 3-27-74 PRESENT OPERATION: 7660', drilling in Mississippian formation. Drilled 90' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', drilled 257' in 84 hours.  
MUD PROPERTIES: Wt 10.3, Vis 45, FL 2.4, FC 1/32, PH 6.0, WTR 82%, Salt 173,000, Plastic Vis 18, Yield Pt 7, Gels 4/10, Solids 18, Sand 1%.  
MUD COST: Daily - \$231.00; Total - \$15,485.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 24 hours drilling  
NOTE: No mud loss, no shows.
- 3-28-74 PRESENT OPERATION: 7696', going in hole to lay down drill collars. Drilled 36' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', out at 7696', drilled 292' in 93 hours, teeth 7, bearing 7, gauge out, nozzle 3/16.  
MUD PROPERTIES: Wt 10.6, Vis 45, FL 4.0, FC 1/32, PH 6.0, WTR 82%, Salt 168,000, Plastic Vis 18, Yield Pt 7, Gels 4/8, Solids 18, Sand 1%.  
MUD COST: Daily - \$62.00; Total - \$15,547.00.  
DRILL ASSEMBLY CHARACTERISTICS: 10-20,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60' above bit.  
TIME BREAKDOWN: 8-3/4 hours drilling, 3-1/2 hours trips, 2 hours circulate, 3/4 hours short trip, 10 hours logging (3 of which malfunction of Schlumberger tools).  
NOTE: Preparing to P & A. No significant shows.
- 3-29-74 FINAL REPORT  
PRESENT OPERATION: 7696' Total Depth, preparing to P & A.  
OPERATIONS PAST 24 HOURS: 2-1/2 hours laying down 4-3/4" drill collars, 2-1/2 hours trip in hole with drill pipe, 4 hours circulate and wait on orders, 1-1/2 hours setting 2 cement plugs, 13-1/2 hours laying down 3-1/2" drill pipe, removing BOP's, rotating heads and begin rigging down. Rig released to rig down.  
NOTE: 1st Cement Plug - 50 sx. class "B" at 7300' to 7100' (+)  
2nd Cement Plug - 50 sx. class "B" at 4260' to 4060' (+)

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: NWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-24-74 PRESENT OPERATION: 7422', drilling in Molas shale. Drilled 27' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', drilled 19' in 14 hours.  
MUD PROPERTIES: Wt 10.2, Vis 43, FL 5.8, FC 1/32, PH 6.0, Oil trace dead, WTR 82%, Salt 170,000, Plastic Vis 15, Yield Pt 12, Gels 3/9, Solids 17, Sand 1/4.  
MUD COST: Daily - \$294.00; Total - \$14,594.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19 hours drilling, 4-3/4 hours trips, 1/2 hour surveys.  
SURVEYS: 12-1/4° at 7403'.
- 3-25-74 PRESENT OPERATION: 7482', drilling in Mississippian formation. Drilled 60' in past 24 hours.  
BIT SUMMARY: #26, 6-1/8" HTC J-33, in at 7403', drilled 79' in 37 hours.  
MUD PROPERTIES: Wt 10.3, Vis 41, FL 3.6, FC 1/32, PH 6.0, Oil trace, WTR 82%, Salt 164,000, Plastic Vis 19, Yield Pt 8, Gels 4/10, Solids 17, Sand 1/8.  
MUD COST: Daily - \$486.00; Total - \$15,079.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizer at 30'.  
TIME BREAKDOWN: 23 hours drilling, 1 hour surveys.  
SURVEYS: 11-3/4° at 7468'.  
NOTE: Top of Mississippian at 7425'. No shows, no mud loss.
- 3-26-74 PRESENT OPERATION: 7570', drilling in Leadville lime. Drilled 88' in past 24 hours.  
BIT SUMMARY: #26 - 6-1/8" HTC, J33, in at 7403', has drilled 167' in 60 hours.  
MUD PROPERTIES: Wt. 10.3, Vis. 41, FL 1.6, Filter Cake 1/32, Ph 6.0, Trace of dead oil, Gels 5/12, Solids 18%, Sand .8%.  
MUD COSTS: Daily \$174.97; Total \$15,254.44.  
DRILL ASSEMBLY CHARACTERISTICS: 33 - 4-3/4" drill collars, 20-24,000# on bit, 50 RPM, 1350 pump psi, 3 point reamer, stabilizers at 30 and 60' above bit.  
TIME BREAKDOWN: 23 hours drilling; 1 hour survey  
SURVEY: 12-1/4° at 7561'.  
DETAILS: No mud loss, no shows.

PKB

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Denver, Colorado 80202  
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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: NWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
3/21/74	7280'	Drilling with Bit #25. Samples: 7250-7260' limestone, argillaceous with shale & traces of anhydrite, 7260-7270' limestone decreasing, shale increasing with trace of anhydrite, 7270-7280' as above.
3/22/74	7346'	Drilling with Bit #25. Samples: 7280-7290' limestone, light gray to brown crystalline. 7290-7330' as above. 7330-7340' as above. Becoming argillaceous w/trace of fluor. and cut. Some dead oil stain.
3/23/74	7395'	Drilling with Bit #25. Top of Molas at 7360'. Soft red shale.
3/24/74	7422'	Drilling with Bit #26. Still in red Molas shale.
3/25/74	7482'	Drilling with Bit #26. Top of Mississippian at 7425'. From 7425' - 7482' hard dense limestone.
3/26/74	7574'	Drilling with Bit #26. Drilling break: 7495'-7515', limestone with some dolomite, no shows. From 7515'-7574', dense limestone with few streaks of dolomite, no shows.
3/27/74	7660'	Drilling with Bit #26. Drilling break: 7574'-7640' predominately dense limestone, no shows. 7640-7660' dense limestone with few streaks tan & cream dolomite, no shows. Est. TD 7700' Could be logging late this p.m.
3/28/74	7696'	Running collars in hole. Preparing to lay down. Drilled to TD with Bit #26, no shows last 24 hours. Ran logs as follows: DLL-9, I-BHCS/GR/Cal. Prep. to P & A.

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

3-19-74 PRESENT OPERATION: 7234', drilling. Drilled 34' in past 24 hours.  
BIT SUMMARY: #23, 6-1/8" HTC OWV, in at 7137', out at 7214', drilled 77' in 30 hours, teeth 6, bearing 6, gauge O.K., nozzle 3/16; #24, 6-1/8" HTC OWC, in at 7214', drilled 20' in 9 hours.  
MUD PROPERTIES: Wt 10.5, Vis 45, FL 3.2, Filter Cake 2/32, PH 6.0, Oil trace, WTR 82%, Salt 169,000, Plastic vis 17, Yield pt 16, Gels 6/4, Solids 18, Sand 0.6.  
MUD COST: Daily - \$147.00; Total - \$13,213.00.  
DRILL ASSEMBLY CHARACTERISTICS: 14-18,000# on bit, 70 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19-1/4 hours drilling, 4-3/4 hours trips.  
NOTE: No shows, no mud loss, drilling slow in limy shale and Clastics.

3-20-74 PRESENT OPERATION: 7254', drilling in Paradox formation. Drilled 20' in past 24 hours.  
BIT SUMMARY: #24, 6-1/8" HTC OWC, in at 7214', out at 7242', drilled 28' in 13-3/4 hours, teeth 3, bearing 5, gauge O.K., nozzle 3/16; #25, 6-1/8" HTC J-33, in at 7242', drilled 12' in 10 hours.  
MUD PROPERTIES: Wt 10.4, Vis 44, FL 4.4, Filter Cake 2/32, PH 6.0, Oil trace, WTR 82%, Salt 170,000, Plastic vis 16, Yield Pt 4, Gels 4/8, Solids 18, Sand 1/2 of 1%.  
MUD COST: Daily - \$240.35; Total - \$13,440.88  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 45 RPM, 1400 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 14-1/2 hours drilling, 7-1/2 hours trips, 1/4 hour surveys, 1-3/4 hour re-pair swivel.  
SURVEYS: 11-3/4 to 120 at 7242'.  
NOTE: Drilling slow, no mud loss, no shows. Developing little torque in drill pipe while rotating.

3-21-74 PRESENT OPERATION: 7280', drilling in Hermosa formation. Drilled 26' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33 Button, in at 5242', drilled 38' in 34 hours.  
MUD PROPERTIES: Wt 10.3, Vis 43, FL 7.4, Filter Cake 1/32, PH 5.9, Oil trace dead, WTR 82%, Salt 185,000, Plastic Vis 13, Yield pt. 12, Gels 2/10, Solids 17, Sand 1/4.  
MUD COST: Daily - \$233.00; Total - \$13,674.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-24,000# on bit, 45-50 RPM, 1350 pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 24 hours drilling.  
NOTE: Drilling slow in clastics type formation, with some harder limes. Some formation too soft for button bit, others too hard for mill type bit. No show, no mud loss.

3-22-74 PRESENT OPERATION: 7346', drilling in Hermosa formation. Drilled 66' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33, in at 7242', drilled 104' in 57 hours.  
MUD PROPERTIES: Wt 10.3, Vis 40, FL 7.2, Filter Cake 1/32, PH 6.0, Oil trace dead, WTR 81%, Salt 170,000, Plastic Vis 13, Yield Pt 7, Gels 2/6, Solids 18, Sand 1/4.  
MUD COST: Daily - \$194.00; Total - \$13,867.00.  
DRILL ASSEMBLY CHARACTERISTICS: 20-22,000# on bit, 40-45 RPM, 1300 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 23 hours drilling, 1 hour surveys.  
SURVEYS: 11° at 7314'.  
NOTE: Showing 40 units of gas. Slight florescence.

3-23-74 PRESENT OPERATION: 7395', drilling in Hermosa formation. Drilled 49' in past 24 hours.  
BIT SUMMARY: #25, 6-1/8" HTC J-33, in at 7242', drilled 153' in 80-1/4 hours.  
MUD PROPERTIES: Wt 10.4, Vis 42, FL 5.2, Filter Cake 1/32, PH 6.0, Oil trace dead, WTR 82%, Salt 171,000, Plastic Vis 17, Yield Pt 9, Gels 4/9, Solids 17, Sand 0.7.  
MUD COST: Daily - \$433.00; Total - \$14,300.00  
DRILL ASSEMBLY CHARACTERISTICS: 22-25,000# on bit, 50 RPM, 1350 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 23-1/4 hours drilling, 3/4 hours pump repair.  
NOTE: Carrying about 20 units of gas. No mud loss, no shows.

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DAILY DRILLING REPORT

Prospect/Area Mineral Point  
Operator: Jack Grynberg & Associates County: Grand State: Utah  
Well Name: Mineral Point Federal Well No.: 1-4  
Location: SWNE Section: 4 Twp: 26 S Rge: 18 E  
Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_  
Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
Objective Zone(s): Mississippian Depth: 7200'  
Contractor: Calvert Western Exploration Company Rig #35  
Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-14-74 PRESENT OPERATION: 7037', drilling in Paradox Formation. Drilled 33' in past 24 hours.  
BIT SUMMARY: #19, 6-1/8" HTC OWV, in at 6903', out at 7023', drilled 120' in 30 hours, (#19, teeth-6, bearing-5, gauge-O.K., nozzle-3/16); #20, 6-1/8" HTC OWV, in at 7023'.  
MUD PROPERTIES: Wt. 10.5, Vis 38, FL 4.8, Filter Cake 1/32, PH 6.4, Oil 2%, WTR 80%, Salt 180,000, Plastic Vis 13, Yield Pt. 10, Gels 2/6, Solids 18, Sand 1%, 1% LCM  
MUD COST: Daily - \$31.25; Total - \$12,200.34.  
DRILL ASSEMBLY CHARACTERISTICS: 8-14,000# on bit, 80 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60' above bit.  
TIME BREAKDOWN: 17-1/2 hours drilling, 5-1/2 hours trips, 1 hour surveys & dressing bit & dress BOP  
SURVEYS: 11-1/2° at 7023'.  
NOTE: Installed shale shaker screen to attempt to get mud weight and solids percentage down. Drilling very slow, unable to run weight. No mud loss, no shows.
- 3-15-74 PRESENT OPERATION: 7088', drilling in Paradox Formation. Drilled 51' in past 24 hours.  
BIT SUMMARY: #20, 6-1/8" HTC OWVJ, in at 7023', drilled 65' in 27-1/2 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 42, FL 1.8, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 81%, Salt 158,000, Plastic Vis 16, Yield Pt. 18, Gels 4/11, Solids 18, Sand 1/2 of 1%, 0% LCM.  
MUD COST: Daily - \$370.00; Total - \$12,574.  
DRILL ASSEMBLY CHARACTERISTICS: 14-16,000# on bit, 80 RPM, 1350 Pump psi, 33 - 4-3/4" collars, 3 pt. reamer, stabilizer at 30' and 60'.  
TIME BREAKDOWN: 24 hours drilling.  
NOTE: Drilling slow in plastic zone, lime, shale dolomite and anhydrite. No mud loss, no shows.
- 3-16-74 PRESENT OPERATION: 7100', tripping (pulling button bit, wouldn't drill). Drilled 12' in past 24 hours. Paradox formation.  
BIT SUMMARY: #20 - 6-1/8" HTC OWVJ, in at 7023', out at 7091', drilled 68' in 28-1/4 hrs. Teeth 7, Bearings 6, Gauge okay, Nozzle size 3/16.  
#21 Rerun 6-1/8" Smith FS button bit, in at 7091', out at 7100', drilled 9' in 8-1/4 hours.  
MUD SUMMARY: Wt. 10.4, Vis 44, Fluid Loss 3.2, Filter Cake 1/32, Ph 6.1, Oil 2%, Water 80%, Salinity 178,000, Plastic Vis 18, Yield Pt. 9, Gels 3/8, Solids 18%, Sand 1/4 of 1%.  
MUD COST: Daily \$246.52; Total \$12,820.37.  
DRILL ASSEMBLY CHARACTERISTICS: 33 - 4-3/4" drill collars, 14-20,000# on bit, 45-55 RPM, 1300 pump psi, 3-pt. reamer, stabilizers 30' and 60' above bit.  
SURVEYS: 12° at 7060'.  
11-3/4° at 7100'.  
TIME BREAKDOWN: 11-1/4 drilling; 8-1/2 trips; 3/4 survey; 2 cut drilling line; 1-1/2 wait for replacement elevators.  
DETAILS: Smith FS button bit would not drill softer formation. Pulled out of hole.  
Formation Characteristics: Plastic zone, some hard lime, but mostly soft lime, anhydritic, dolomite.
- 3-17-74 PRESENT OPERATION: 7137', trip in Paradox formation. Drilled 37' in past 24 hours.  
BIT SUMMARY: #22, 6-1/8" HTC OWCJ, in at 7100, out at 7137', drilled 37' in 17-3/4 hours.  
MUD PROPERTIES: Wt. 10.5, Vis 43, FL 2.8, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 80%, Salt 173,000, Plastic Vis 17, Yield Pt. 14, Gels 4/11, Solids 19, Sand 1/2 of 1%.  
MUD COST: Daily - \$183.00; Total - \$13,004.00  
DRILL ASSEMBLY CHARACTERISTICS: 16-18,000# on bit, 75 RPM, 1300 Pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 17-3/4 hours drilling, 5-3/4 hours trips, 1/2 hour rig repair.  
SURVEYS: 12° at 7100.  
NOTE: Drilling slow plastic formation. No mud loss, no shows.
- 3-18-74 PRESENT OPERATION: 7200', drilling. Drilled 63' in past 24 hours.  
BIT SUMMARY: #23, 6-1/8" HTC, OWVJ, in at 7137', drilled 63' in 19-3/4 hours, teeth-4, bearing-6, gauge-O.K., nozzle - 3/18 gauge.  
MUD PROPERTIES: Wt. 10.7, Vis 42, FL 6.2, Filter Cake 1/32, PH 6.0, Oil 1%, WTR 80%, Salt 179,000, Plastic vis 14, Yield Pt. 9, Gels 3/7, Solids 18, Sand 1/2 of 1%.  
MUD COST: Daily - \$50.00; Total - \$4100.00  
DRILL ASSEMBLY CHARACTERISTICS: 12-18,000# on bit, 70 RPM, 1300 pump psi, 33 - 4-3/4" drill collars, 3 pt. reamer, stabilizers at 30' and 60'.  
TIME BREAKDOWN: 19-3/4 hours drilling, 2-1/4 hours trips, 1 hour surveys, 1/2 hour circulate, 1/2 hour dress bit and BOP.  
SURVEYS: 11-3/4° at 7191'.  
NOTE: Top of salt section at 7150', approximately 20' of salt, 10' of shale, and another

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: UTAH

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungmDF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Company Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-9-74 PRESENT OPERATION: 6644', drilling in Paradox Formation. Drilled 174' in past 24 hours.  
BIT SUMMARY: #17, re-run #7, 6-1/8" HTC J-33, in at 6451', has drilled 183' in 29 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 45, FL 4.0, Filter Cake 1/32, Ph 6.0, Oil 1%, Water 82%, Salinity 172,000 ppm, Plastic Vis 18, Yield Pt. 2, Gels 2/6, Solids 16%, Sand 1/2%, LCM 2%  
MUD COST: Daily - \$30.00; Total - \$11,329.75.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 60 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21-1/2 hours drilling, 2-1/2 hours surveys.  
SURVEYS: 11° @ 6572'; 10-3/4° @ 6634'.  
NOTE: No mud loss, no shows. Drilling salt.
- 3-10-74 PRESENT OPERATION: 6770', drilling. Drilled 122' in past 24 hours.  
BIT SUMMARY: #17, re-run #7, 6-1/8" HTC J-33, in at 6451', out at 6711', drilled 260' in 30' (T-3, B-4, G-I), #18, 6-1/8" HTC OWCJ, in at 6711', has drilled 59'  
MUD PROPERTIES: Wt. 10.6, Vis 45, FL 4, Filter Cake 1/32, Ph 6.0, Oil 2%, Water 89%, Salinity 159,000 ppm, Plastic Vis 23, Yield Pt. 11, Gels 16/30, Solids 18%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$134.00; Total - \$11,463.00.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 60-80 RPM, 1300 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 16-1/2 hours drilling, 6-1/2 hours trips, checking B.O.P., breaking circulating at bottom of casing.  
SURVEY: 12° @ 6727'.  
NOTE: Apparent top of Cane Creek at 6749'. Had no shows, no mud loss. Deviations still building.
- 3-11-74 PRESENT OPERATION: 6818', working on swivel. Drilled 48' in past 24 hours.  
BIT SUMMARY: #18, 6-1/8" HTC OWCJ, in at 6711', has drilled 107' in 32 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 48, FL 3.2, Filter Cake 1/32, Ph 6, Oil 2%, Water 82%, Salinity 171,000 ppm, Plastic Vis 19, Yield Pt. 14, Gels 4/12, Solids 16%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$205.00; Total - \$11,669.00.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1400 pump psi, 3 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21 hours drilling, 1 hour surveys, 2 hours repair and packing swivel.  
SURVEY: 12° @ 6790'.  
NOTE: Drilling slow in plastic formation. Had no shows, no mud loss.
- 3-12-74 PRESENT OPERATION: 6903', tripping in Paradox Formation. Drilled 85' in past 24 hours.  
BIT SUMMARY: #18, 6-1/8" HTC OVVJ, in at 6711', out at 6903', drilled 192' in 53-1/4 hours.  
MUD PROPERTIES: Wt. 10.5, Vis 41, FL 4.4, Filter Cake 1/32, Ph 6, Oil 2%, Water 80%, Salinity 150,000 ppm, Plastic Vis 15, Yield Pt. 8, Gels 3/7, Solids 18%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$464.63; Total - \$12,133.19.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21-1/4 hours drilling, 1-1/4 hours trips, 1 hour surveys, 1-1/2 hours rig repair.  
SURVEYS: 12° @ 6851'.  
NOTE: No shows, no mud loss. Some apparent change in geology, not sure where drilling at this time.
- 3-13-74 PRESENT OPERATION: 7004', drilling in Paradox Formation. Drilled 101' in past 24 hours.  
BIT SUMMARY: #18, 6-1/8" HTC OWCJ, in at 6711', out at 6903', drilled 102' in 53-1/4 hours, T-4, B-6, G-I, #19, 6-1/8" HTC OWCJ, in at 6903', has drilled 101' in 16 hours.  
MUD PROPERTIES: Wt. 10.5, Vis 45, FL 1.6, Filter Cake 1/32, Ph 6, Oil 1%, Water 80%, Salinity 160,000 ppm, Plastic Vis 14, Yield Pt. 11, Gels 4/9, Solids 19%, Sand 1/4%, LCM 2%.  
MUD COST: Daily - \$42.00; Total - \$12,175.00.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 16 hours drilling, 4-1/2 hours trips, 1 hour surveys, 2-1/2 hours rig repair.  
SURVEYS: 12° @ 6975'.  
NOTE: Recorded 15 units of gas at 7003'. No mud loss, no other shows. Drilling in broken plastic and salt sections.

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DAILY DRILLING REPORT

Prospect/Area Mineral Point  
Operator: Jack Grynberg & Associates County: Grand State: UTAH  
Well Name: Mineral Point Federal Well No.: 1-4  
Location: SWNE Section: 4 Twp: 26 S Rge: 18 E  
Elevations: \_\_\_\_\_ Grd: 5291' ungdF: \_\_\_\_\_ KB: \_\_\_\_\_  
Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
Objective Zone(s): Mississippian Depth: 7200'  
Contractor: Calvert Western Exploration Company Rig #35  
Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-9-74 PRESENT OPERATION: 6644', drilling in Paradox Formation. Drilled 174' in past 24 hours.  
BIT SUMMARY: #17, re-run #7, 6-1/8" HTC J-33, in at 6451', has drilled 183' in 29 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 45, FL 4.0, Filter Cake 1/32, Ph 6.0, Oil 1%, Water 82%, Salinity 172,000 ppm, Plastic Vis 18, Yield Pt. 2, Gels 2/6, Solids 16%, Sand 1/2%, LCM 2%  
MUD COST: Daily - \$30.00; Total - \$11,329.75.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 60 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21-1/2 hours drilling, 2-1/2 hours surveys.  
SURVEYS: 11° @ 6572'; 10-3/4° @ 6634'.  
NOTE: No mud loss, no shows. Drilling salt.
- 3-10-74 PRESENT OPERATION: 6770', drilling. Drilled 122' in past 24 hours.  
BIT SUMMARY: #17, re-run #7, 6-1/8" HTC J-33, in at 6451', out at 6711', drilled 260' in 30' (T-3, B-4, G-I), #18, 6-1/8" HTC OWCJ, in at 6711', has drilled 59'  
MUD PROPERTIES: Wt. 10.6, Vis 45, FL 4, Filter Cake 1/32, Ph 6.0, Oil 2%, Water 89%, Salinity 159,000 ppm, Plastic Vis 23, Yield Pt. 11, Gels 16/30, Solids 18%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$134.00; Total - \$11,463.00.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 60-80 RPM, 1300 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 16-1/2 hours drilling, 6-1/2 hours trips, checking B.O.P.; breaking circulating at bottom of casing.  
SURVEY: 12° @ 6727'.  
NOTE: Apparent top of Cane Creek at 6749'. Had no shows, no mud loss. Deviations still building.
- 3-11-74 PRESENT OPERATION: 6818', working on swivel. Drilled 48' in past 24 hours.  
BIT SUMMARY: #18, 6-1/8" HTC OWCJ, in at 6711', has drilled 107' in 32 hours.  
MUD PROPERTIES: Wt. 10.4, Vis 48, FL 3.2, Filter Cake 1/32, Ph 6, Oil 2%, Water 82%, Salinity 171,000 ppm, Plastic Vis 19, Yield Pt. 14, Gels 4/12, Solids 16%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$205.00; Total - \$11,669.00.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1400 pump psi, 3 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21 hours drilling, 1 hour surveys, 2 hours repair and packing swivel.  
SURVEY: 12° @ 6790'.  
NOTE: Drilling slow in plastic formation. Had no shows, no mud loss.
- 3-12-74 PRESENT OPERATION: 6903', tripping in Paradox Formation. Drilled 85' in past 24 hours.  
BIT SUMMARY: #18, 6-1/8" HTC OWCJ, in at 6711', out at 6903', drilled 192' in 53-1/4 hours.  
MUD PROPERTIES: Wt. 10.5, Vis 41, FL 4.4, Filter Cake 1/32, Ph 6, Oil 2%, Water 80%, Salinity 150,000 ppm, Plastic Vis 15, Yield Pt. 8, Gels 3/7, Solids 18%, Sand 1%, LCM 2%.  
MUD COST: Daily - \$464.63; Total - \$12,133.19.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1350 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 21-1/4 hours drilling, 1-1/4 hours trips, 1 hour surveys, 1-1/2 hours rig repair.  
SURVEYS: 12° @ 6851'.  
NOTE: No shows, no mud loss. Some apparent change in geology, not sure where drilling at this time.

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DAILY DRILLING REPORT

Prospect/Area Mineral Point  
Operator: Jack Grynberg & Assoc. County: Grand State: Utah  
Well Name: Mineral Point Federal Well No.: 1-4  
Location: SWNE Section: 4 Twp: 26 S Rge: 18 E  
Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_  
Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
Objective Zone(s): Mississippian Depth: 7200'  
Contractor: Calvert Western Exploration Company Rig #35  
Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

- 3-4-74 PRESENT OPERATION: 5877', working on mud lines. Drilled 174' in past 24 hours.  
BIT SUMMARY: #15, 6-1/8" HTC OWVJ, in at 5476', has drilled 401' in 37-1/2 hours.  
MUD PROPERTIES: Wt. 10.3, Vis 51, FL 2.2, Filter Cake 1/32, Ph 5.9, Water 80%, Salinity 158,000 ppm, Plastic Vis 16, Yield Pt. 7, Gels 4/9, Solids 20%, Sand .4%, LCM 2%.  
MUD COST: Daily - \$109.00; Total - \$10,458.00.  
DRILL ASSEMBLY CHARACTERISTICS: 14,000# on bit, 80 RPM, 1400 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 18 hours drilling, 2 hours surveys, 4 hours repairs on mud lines.  
SURVEYS: 7-3/4° @ 5764'.  
NOTE: Gas show from 5707'-5718', 150 units, appears to be coming from black shale, Clastic "C" Zone. No mud loss.
- 3-5-74 PRESENT OPERATION: 6044', drilling in Paradox Formation. Drilled 167' in past 24 hours.  
BIT SUMMARY: #15, 6-1/8" HTC OWVJ, in at 6476', has drilled 568' in 67-3/4 hours.  
MUD PROPERTIES: Wt. 10.2, Vis 43, FL 5, Filter Cake 1/32, Ph 6.4, Oil trace (dead), Water 80%, Salinity 174,000 ppm, Plastic Vis 17, Yield Pt. 8, Gels 3/7, Solids 20%, Sand trace, LCM 2%.  
MUD COST: Daily - \$167.35; Total - \$10,625.59.  
DRILL ASSEMBLY CHARACTERISTICS: 14-12,000# on bit, 80 RPM, 1400 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 20-1/4 hours drilling, 1-1/2 hours surveys, 1-3/4 hours rig repair, 1/2 hour circulate.  
SURVEY: 8° @ 5919'; 8-1/2° @ 6043'.  
NOTE: No show, no mud loss.
- 3-6-74 PRESENT OPERATION: 6162', drilling in Paradox Formation. Drilled 118' in past 24 hours.  
BIT SUMMARY: #15, 6-1/8" HTC OWV, in at 5476', out at 6045', drilled 569' in 57-3/4 hours, T-4, B-8, B-I, #16, 6-1/8" Smith V-2, in at 6045', has drilled 117'.  
MUD PROPERTIES: Wt. 10.4, Vis 43, FL 4.4, Filter Cake 2/32, Ph 5.8, Oil 1%, Water 82%, Salinity 174,000 ppm, Plastic Vis 12, Yield Pt. 20, Gels 4/10, Solids 17%, Sand 0.6%, LCM 1%.  
MUD COST: Daily - \$160.41; Total - \$10,786.00.  
DRILL ASSEMBLY CHARACTERISTICS: 15-8,000# on bit, 80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 17 hours drilling, 5-1/2 hours trips, 1/2 hour surveys, 1 hour change rubber on stabilizers.  
SURVEYS: 9° @ 6137'.  
NOTE: Having no hole trouble except deviation. Presently 9°, build 1/2° in last 100'. No hole drag. No mud loss and no shows.
- 3-7-74 PRESENT OPERATION: 6350', drilling in Paradox Formation. Drilled 188' in past 24 hours.  
BIT SUMMARY: #16, 6-1/8" Smith V-2, in at 6045', has drilled 305' in 39-1/2 hours.  
MUD PROPERTIES: Wt. 10.3, Vis 41, FL 5.8, Filter Cake 1/32, Ph 6.1, Oil trace, Water 80%, Salinity 173,000 ppm, Plastic Vis 16, Yield Pt. 8, Gels 2/7, Solids 20%, Sand 1/2%, LCM 2%.  
MUD COST: Daily - \$384.69; Total - \$11,170.69.  
DRILL ASSEMBLY CHARACTERISTICS: 8-10,000# on bit, 80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 22-1/2 hours drilling, 1-1/2 hours surveys.  
SURVEYS: 10° @ 6230'; 10° @ 6293'.  
NOTE: No shows, no mud loss. Presently drilling in salt.
- 3-8-74 PRESENT OPERATION: 6460', drilling in Paradox formation. Drilled 110' in past 24 hours.  
BIT SUMMARY: #16, 6-1/8" Smith V-2, in at 6045', out at 6451', drilled 406' in 52-1/2 hours, T-2, B-6, G-I, #17, re-run #7, 6-1/8" HTC J-33, in at 6451', has drilled 9'.  
MUD PROPERTIES: Wt. 10.4, Vis 43, FL 1.8, Filter Cake 1/32, Ph 5.9, Oil 1%, Water 81%, Salinity 157,000 ppm, Plastic Vis 17, Yield Pt. 10, Gels 3/8, Solids 18%, Sand 1%, LCM 2-3%.  
MUD COST: Daily - \$129.06; Total - \$11,299.75.  
DRILL ASSEMBLY CHARACTERISTICS: 8-12,000# on bit, 50-80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' & 60'.  
TIME BREAKDOWN: 17-1/2 hours drilling, 4-3/4 hours trips, 1-1/2 hours surveys, 1/4 hour rig service.  
SURVEYS: 10-1/2° @ 6355'; 10° @ 6418'.  
NOTE: No mud loss, no shows.

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Assoc. County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291'ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Expl. Co. Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
2-28-74		<p><b>PRESENT OPERATION:</b> 5303', drilling in Paradox Formation. Drilled 41' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #13, 6-1/8" HTC J-33, in at 5082', out at 5292', drilled 210' in 40-3/4 hours (#13, green will rerun), #14, 6-1/8" HTC OWZJ, in at 5292', in hole drilling.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.2, Vis 38, FL 3.2, Filter Cake 2/32, PH 5.8, Oil trace, WTR 84, Salt 172,000, Plastic Vis 12, Yield Pt. 13, Gels 3/8, Solids 16, ss 0.25%, 3% LCM</p> <p><b>MUD COST:</b> Daily - (Material) \$316.74 + (Trucking) \$4,003.67 = \$4,320.41; Total - \$10,405.98.</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 8,000# on bit, 75-80 RPM, 1200 Pump psi, 33 - 4-3/4" drill collars, 3-pt. reamer, stabilizers at 30' and 60' above bit</p> <p><b>TIME BREAKDOWN:</b> 18 hours drilling, 4 hours trips, 1 hour circulate and ream, 1 hour cut drilling line.</p> <p><b>SURVEYS:</b> 7° at 5292'</p> <p><b>NOTE:</b> Drilling slow, pulled J-33 button bit. Formation too soft to drill, ran OWVJ mill tooth, only running 8,000# due to crooked hole, had some drag on the first 3 stands coming off of bottom. Had 125 units of trip gas. Presently reading approximately 25 units. Some dead oil floating on top of pit.</p>
3-1-74		<p><b>PRESENT OPERATION:</b> 5421', drilling in Paradox Formation. Drilled 118' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #14, 6-1/8" HTC OWVJ, in at 5292', drilled 118' in 23-1/4 hours.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis 44, FL 2.7, Filter Cake 1/32, PH 6.1, Oil trace of dead oil, Salt 184,000%, Plastic Vis 19, Yield Pt. 2, Gels 3/10, Solids 18, ss 1/2 of 1%, 2% to 3% LCM</p> <p><b>MUD COST:</b> Daily - \$267.00; Total - \$10,673.00</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 8,000 to 9,000# on bit, 80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' and 60'.</p> <p><b>TIME BREAKDOWN:</b> 23-1/4 hours drilling, 3/4 hour surveys.</p> <p><b>SURVEYS:</b> 7-3/4° at 5359'</p> <p><b>NOTE:</b> Getting some gas kick. Apparently inert gas - isn't recording on logging unit. Will break circulation at bottom of intermediate casing on all future trips. Slow drilling in plastic zone. Deviation continuing to build - presently 7-3/4°.</p>
3-2-74		<p><b>PRESENT OPERATION:</b> 5476', tripping for bit. Paradox formation. Drilled 55' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #14 - 6-1/8" HTC, OWVJ, in at 5292', out at 5476'. Drilled 184' in 48-1/2 hours. Teeth 3, Bearings 3, In gauge, Nozzles open.</p> <p>#15 - 6-1/8" HTC, OWVJ, in at 5476' and drilling.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis. 40, FL 2.0, Filter Cake 1/32, Ph 5.8, trace of dead oil, Water 80%, Salinity 169,000, Plastic Vis. 19, Yield Pt. 9, Gels 3/8, Solids 20%, Sand 0.3%, LCM 2%.</p> <p><b>MUD COST:</b> Daily \$6.84, Total \$10,214.79 (corrected figure).</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 33 - 4-3/4" drill collars, 10,000# on bit, RPM 80, Pump psi 1200, 3-pt. reamer, stabilizers at 30' and 60'.</p> <p><b>SURVEYS:</b> 7° at 5476'.</p> <p><b>TIME BREAKDOWN:</b> Drilling 21 hours; Trips 2 hours; Surveys 1 hr.</p> <p><b>DETAILS:</b> Drilling slow, formation very soft and gummy. No mud loss, no distinct shows.</p>
3-3-74		<p><b>PRESENT OPERATION:</b> 5703', drilling in Paradox Formation. Drilled 227' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #15, 6-1/8" HTC OWVJ, in at 5476', has drilled 227' in 19-1/2 hours.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis 41, FL 3, Filter Cake 1/32, Ph 5.9, Oil trace, Water 80%, Salinity 175,000 ppm, Plastic Vis 14, Yield Pt. 5, Gels 2/4, Solids 20%, Sand 1/4%, LCM 2%.</p> <p><b>MUD COST:</b> Daily - \$134.00; Total - \$10,349.00 (corrected).</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 12-14,000# on bit, 80 RPM, 1400 pump psi, 33 - 4-3/4" drill collars, 3-point reamer, stabilizers at 30' &amp; 60' above bit.</p> <p><b>TIME BREAKDOWN:</b> 19-1/2 hours drilling, 3-1/2 hours trips, 1 hour surveys.</p> <p><b>SURVEYS:</b> 7° @ 5546'; 7° @ 5640'; 7-3/4° @ 5703'.</p> <p><b>NOTE:</b> Appears deviation will stay between 7° and 8°. Increased drilling weight from 10-14,000# Penetration rate slightly improved, no show and no mud loss.</p>

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DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Assoc. County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungrad. DF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Co.-Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
2-24-74		<p><b>PRESENT OPERATION:</b> 4977', trip. Drilled 139' in past 24 hours. Paradox Formation.</p> <p><b>BIT SUMMARY:</b> #11, 6-1/8" Smith V-2, in at 4792', out at 4977', drilled 185' in 33-1/2 hours, T-2, B-3, G-I, #12, 6-1/8" Smith V-2, in at 4977'.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis 41, FL 1.8, Filter Cake 1/32, Ph 5.8, Water 84%, Salinity 155,000 ppm, Plastic Vis 20, Yield Pt. 14, Gels 4/10, Solids 16%, Sand 1/4%.</p> <p><b>MUD COST:</b> Daily - \$125.00; Total - \$5,911.00.</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 8,000# on bit, 75-80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, stabilizer 60' above bit.</p> <p><b>TIME BREAKDOWN:</b> 21-1/2 hours drilling, 2-1/2 hours surveys.</p> <p><b>SURVEYS:</b> 7-3/4° @ 4860'; 8° @ 4921'; 7° @ 4977'.</p> <p><b>NOTE:</b> No mud loss, no shows.</p>
2-25-74		<p><b>PRESENT OPERATION:</b> 5053', drilling in Paradox Formation. Drilled 76' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #12, 6-1/8" Smith V-2, in at 4977', has drilled 76' in 16 hours.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis 40, FL 3.6, Filter Cake 1/32, Ph 6.1, Water 85%, Salinity 170,000 ppm, Plastic Vis 16, Yield Pt. 4, Gels 1/6, Solids 15%, Sand trace, LCM 4%.</p> <p><b>MUD COST:</b> Daily - \$100.00; Total - \$6,011.00.</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 8,000# on bit, 80 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, stabilizer 60' above bit.</p> <p><b>TIME BREAKDOWN:</b> 19-1/4 hours drilling, 3 hours trips, 3/4 hour surveys, 1 hour wash and ream to bottom after bit change.</p> <p><b>SURVEY:</b> 7-3/4° @ 5015'.</p> <p><b>NOTE:</b> Indicating approximately 15 units gas, probable shale gas. Trace of oil on pits, no mud loss.</p>
2-26-74		<p><b>PRESENT OPERATION:</b> 5114', drilling. Drilled 61' in past 24 hours. Paradox Formation.</p> <p><b>BIT SUMMARY:</b> #12, 6-1/8" Smith D-2, in at 4977', out at 5082', drilled 105' in 32-1/2 hours. #13, 6-1/8" HTC J-33, in at 5082'. Bit #7 was a rerun. Condition of Bit #12: teeth-3, bearing-3, guage-O.K., nozzle open.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.3, Vis 43, FL 2.0, Filter Cake 1/32, PH 5.8, WTR 82, Salt 171,000, Plastic Vis 20, Yield Pt. 14, Gels 5/11, Solids 18%, ss 0.52, Other 3% LCM.</p> <p><b>MUD COST:</b> Daily - \$222.94; Total - \$6,034.30</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 8,000 - 10,000# on bit, 60 RPM, 1200 pump psi, 33 - 4-3/4" drill collars. Picked up bottom hole 3 pt. reamer and ran stabilizer at 30' and 60' above the bit. <b>TIME BREAKDOWN:</b> 18-3/4 hours drilling, 4-1/2 hours trips, 1 hour surveys, 3/4 hours reaming. <b>SURVEYS:</b> 6-1/2° at 5075'</p>
2-27-74		<p><b>PRESENT OPERATION:</b> 5262', drilling in Paradox Formation. Drilled 148' in past 24 hours.</p> <p><b>BIT SUMMARY:</b> #13 (#7RR), 6-1/8" HTC J-33, in at 5082', drilled 148' in 22-3/4 hours.</p> <p><b>MUD PROPERTIES:</b> Wt. 10.2, Vis 40, FL 5.0, Filter Cake 1/32, PH 6.0, Oil trace, WTR 84, Salt 189,000, Plastic Vis 17, Yield Pt. 6, Gels 2/7, Solids 15, Sand trace, 2% - 4% LCM</p> <p><b>MUD COST:</b> Daily - \$274.00; Total - \$6,085.57.</p> <p><b>DRILL ASSEMBLY CHARACTERISTICS:</b> 10,000# on bit, 60 RPM, 1200 pump psi, 33 - 4-3/4" drill collars, 3-point reamer and stabilizers 30' and 60' above bit</p> <p><b>TIME BREAKDOWN:</b> 22-3/4 hours drilling, 1-1/4 hours surveys</p> <p><b>SURVEYS:</b> 6° at 5143', 6-1/2° at 5236'.</p> <p><b>NOTE:</b> Reduced drilling weight from 13,000 to 14,00; back to 10,000.</p>

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DAILY DRILLING REPORT

Prospect/Area Mineral Point  
 Operator: Jack Grynberg & Associates County: Grand State: Utah  
 Well Name: Mineral Point Federal Well No.: 1-4  
 Location: SWNE Section: 4 Twp: 26S Rge: 18E  
 Elevations: \_\_\_\_\_ Grd: 5291' ungraded KB: \_\_\_\_\_  
 Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
 Objective Zone(s): Mississippian Depth: 7200'  
 Contractor: Calvert Western Exploration Co. - Rig #35  
 Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
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2-20-74	PRESENT OPERATION: 4377', drilling in Paradox Formation. Drilled 33' in past 24 hours. BIT SUMMARY: #7, 6-1/8" HTC J-33, in at 4198', out at 4366', drilled 168' in 54-1/4 hours, T-2, B-1, G-1, #8, 6-1/8" Smith F-5, in at 4366', has drilled 11'. MUD PROPERTIES: Wt. 10.3, Vis 39, FL 2, Filter Cake 1/32, Ph 5.8, Salinity 154,000 ppm, Plastic Vis 15, Yield Pt. 7, Gels 2/2, Solids trace, LCM 4%. MUD COST: Daily - \$1,139.00, Total - \$5,139.00. DRILL ASSEMBLY CHARACTERISTICS: 15,000# on bit, 60 RPM, 1100 pump psi, 26 - 4-3/4" drill collars, bottom hole reamer, stabilizers at 30' & 90'. TIME BREAKDOWN: 15 hours drilling, 6-1/4 hours trips, 1/4 hour surveys, 2-1/2 hours cut drilling line. SURVEY: 2-3/4° @ 4366'. DETAILS: Drilling slow, new button bit did not improve drilling time. Lost approximately 50 bbls. mud on trip, mostly due to pulling wet string.	
2-21-74	PRESENT OPERATION: 4565', drilling. Drilled 188' in past 24 hours. BIT SUMMARY: #8, 6-1/8" Smith F-5, in at 4366', out at 4380', drilled 14' in 9-1/2 hours, T-1, B-1, G-1, #9, 6-1/8" Smith V-2, in at 4380', has drilled 185' in 13 hours. MUD PROPERTIES: Wt. 10.2, Vis 39, FL 4.8, Filter Cake 1/32, Ph 6, Water 78%, Salinity 168,000, Plastic Vis 16, Yield Pt. 8, Gels 1/4, Solids 1%. MUD COST: Daily - \$192.00; Total - \$5,331.00. DRILL ASSEMBLY CHARACTERISTICS: 20,000# on bit, 60 RPM, 1250 pump psi, 33 - 4-3/4" drill collars, bottom hole reamer, stabilizers at 30' & 90'. TIME BREAKDOWN: 18 hours drilling, 5-1/2 hours trips, 1/2 hour reaming. NOTE: Bit #8 was pulled because it would not drill soft formation. Had to wash 40' to bottom after changing bits. No mud loss during past 24 hours. Recording about 22 units gas presently.	
2-22-74	PRESENT OPERATION: 4720', drilling. Drilled 155' in past 24 hours. BIT SUMMARY: #9, 6-1/8" Smith V-2, in at 4380', out at 4596', drilled 186' in 19-1/2 hours, #10, 6-1/8" HTC OWVJ, in at 4596', has drilled 144' in 13 hours. MUD PROPERTIES: Wt. 10.2, Vis 39, FL 2, Filter Cake 1/32, Ph 5.8, Water 80, Salinity 155,000, Plastic Vis 18, Yield Pt. 9, Gels 2/6, Solids trace, LCM 2-4%. MUD COST: Daily - \$176.00; Total - \$5,507.00. DRILL ASSEMBLY CHARACTERISTICS: 10,000# on bit, 75 RPM, 1250 pump psi, 33 - 4-3/4" drill collars, bottom reamer, stabilizers at 30' & 90'. TIME BREAKDOWN: 18 hours drilling, 4 hours trips, 2 hours surveys. SURVEYS: 6-1/4° @ 4564'; 6-1/4° @ 4601'; 6-1/4° @ 4635'; 6-1/4° @ 4701'. NOTE: Holding up on weight, turning rotary faster to attempt to bring hole back straight. No mud loss and no show.	
2-23-74	PRESENT OPERATION: 4838', drilling in Paradox formation. Drilled 118' in past 24 hours. BIT SUMMARY: #10, 6-1/8" HTC OWVJ, in at 4596', out at 4792', drilled 196' in 22 hours, T-2, B-3, G-1, #11, 6-1/8" Smith V-2, in at 4792', has drilled 46' in 11-1/2 hours. MUD PROPERTIES: Wt. 10.2, Vis 50, FL 3, Filter Cake 1/32, Ph 6, Water 80%, Salinity 168,000, Plastic Vis 9, Yield Pt. 2, Gels 1/3, Solids trace. MUD COST: Daily - \$80.00; Total - \$5,586.00. DRILL ASSEMBLY CHARACTERISTICS: 8,000# on bit, 75-80 RPM, 1150 pump psi, 33 - 4-3/4" drill collars, stabilizer at 60'. TIME BREAKDOWN: 18-3/4 hours drilling, 3-3/4 hours trips, 1 hour surveys, 1/2 hour lay down stabilizer and reamer. SURVEY: 8° @ 4780'. NOTE: Laid down bottom hole reamer and one stabilizer to attempt to straighten hole. No mud loss and no show. Holding bit weight up, running 8,000#, hoping to get hole back.	

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DAILY DRILLING REPORT

Prospect/Area Mineral Point  
 Operator: Jack Grynberg & Associates County: Grand State: Utah  
 Well Name: Mineral Point Federal Well No.: 1-4  
 Location: SWNE Section: 4 Twp: 26 S Rge: 18 E  
 Elevations: \_\_\_\_\_ Grd: 5291' ungr. DF: \_\_\_\_\_ KB: \_\_\_\_\_  
 Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
 Objective Zone(s): Mississippian Depth: 7200'  
 Contractor: Calvert Western Exploration Co-Rig #35  
 Spud: 4:00 p.m. 1/30/4 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
2-15-74		<p><b>PRESENT OPERATION:</b> 4100', nipping up.  <b>TIME BREAKDOWN:</b> 4-1/2 hours logging, 1-1/2 hours lay down drill collars, rig up casing crew, 3 hours run casing, 1-1/2 hours attempting to circulate casing, 1 hour cementing, 6 hours W.O.C. prior to setting slips, 4 hours nipping up, 3-1/2 hours trips. Lost 2 hours due to malfunction of Schlumberger tools.  <b>CASING JOB:</b> Ran 4100' of 7" 23# K-55 casing. Landed at 4100' K.B. Cemented with 100 sacks Class "B" cement with 2% CaCl and 1/4# per sack Floccelle. Displaced with 160 bbls. water. Bumped plug to 1000#. Released pressure, float held. Pressured again to 1000#, waited 5 minutes, had no pressure drop. Bled pressure down to approximately 400#. Shut head in. W.O.C. Waited 6 hours before setting slips. Cut 7" pipe off. Started nipping up.</p>
2-16-74		<p><b>PRESENT OPERATION:</b> 4100', finished picking up 3-1/2" drill pipe, preparing to test BOP's.  <b>BIT SUMMARY:</b> #6 - 6-1/8" HTC OWVJ, in at 4100'.  <b>TIME BREAKDOWN:</b> 5-1/2 hr. nipping up; 3-1/2 hr. laying down 4-1/2" drill pipe, 15 hr. rigging up and picking up 26 - 4-3/4" drill collars and 3-1/2" drill pipe.  <b>DETAILS:</b> Picked up 26 4-1/2" spiral-groove drill collars. Put 1 stabilizer 30' above bit, another 90' above bit, and presently preparing to drill cement out of 7" 23# intermediate casing.</p>
2-17-74		<p><b>PRESENT OPERATION:</b> 4200', drilling. Drilled 100' in past 24 hours.  <b>BIT SUMMARY:</b> #5, 6-1/8" HTC OWCJ, in at 4100', out at 4198', drilled 98' in 10 hours, T-2, B-3, G-1, #6, 6-1/8" HTC J-33, in at 4198', has drilled 2'.  <b>MUD PROPERTIES:</b> Wt. 10.0, Vis 40, FL 9.4, Filter Cake 2/32, Ph 6.1, Salinity 172,000, Plastic Vis 9, Yield Pt. 4, Gels 1/5, Solids trace.  <b>DRILL ASSEMBLY CHARACTERISTICS:</b> 20,000# on bit, 45 RPM, 1100 pump psi, 26 - 4-3/4" drill collars, stabilizers at 30' &amp; 90'.  <b>TIME BREAKDOWN:</b> 10 hours drilling, 5-1/2 hours trips, 3/4 hour surveys, 1/2 hour test B.O.P., 3 hours drilling cement, 4-1/2 hours mix mud and LCM.  <b>NOTE:</b> 10' good cement above cement plug. 2 jts. with good cement. Approx. 3' open hole between casing guide shoe and original T.D. Drilled approx. 17' of what appears to be salt section. Appeared to start losing fluid continuously while drilling. Bit slowed down, pulled out of hole due to lost circulation. Changed bit, went back in hole, could not get returns.</p>
2-18-74		<p><b>PRESENT OPERATION:</b> 4278', drilling. Drilled 80' in past 24 hours.  <b>BIT SUMMARY:</b> #6, 6-1/8" HTC J-33, in at 4198', has drilled 82' in 24 hours.  <b>MUD PROPERTIES:</b> Wt. 10.2, Vis 42, FL 5.7, Filter Cake 2/32, Ph 6, Salinity 183,000, Plastic Vis 12, Yield Pt. 8, Gels 3/6, Solids trace, LCM 3%.  <b>MUD COST:</b> Daily - \$2,337.00; Total - \$2,337.00.  <b>DRILL ASSEMBLY CHARACTERISTICS:</b> 15-20,000# on bit, 45 RPM, 700 pump psi, 26 - 4-3/4" drill collars, bottom hole reamer, stabilizers at 30' &amp; 90'.  <b>TIME BREAKDOWN:</b> 23-1/2 hours drilling, 1/2 hour surveys.  <b>SURVEYS:</b> 2-1/4° @ 4215'.  <b>NOTE:</b> Drilling slowly, approximately 20 minutes per foot. Lost approximately 300 bbls. mud. After regaining circulation, had no fluid loss.</p>
2-19-74		<p><b>PRESENT OPERATION:</b> 4344', drilling. Drilled 66' in past 24 hours.  <b>BIT SUMMARY:</b> #67, 6-1/8" HTC J-33, in at 4198', has drilled 146' in 47-1/4 hours.  <b>MUD PROPERTIES:</b> Wt. 10.3, Vis 45, FL 3.6, Filter Cake 1/32, Ph 6, Salinity 165,000 ppm, Plastic Vis 20, Solids trace.  <b>MUD COST:</b> Daily - \$1,663.00; Total - \$4,000.00.  <b>DRILL ASSEMBLY CHARACTERISTICS:</b> 15,000# on bit, 45 RPM, 1250 pump psi, 26 - 4-3/4" drill collars, bottom hole reamer, stabilizers at 30' &amp; 90' above bit.  <b>TIME BREAKDOWN:</b> 23-1/2 hours drilling, 1/2 hour surveys.  <b>SURVEY:</b> 2-3/4° @ 4323'.  <b>NOTE:</b> Drilling slow. Slight drilling break at report time, about 15 minutes per foot for 4' and appears to be continuing. No fluid loss in past 24 hours.</p>

JACK GRYNBERG AND ASSOCIATES  
Petroleum, Geological, Geophysical and Mining Engineers

1050 - 17th Street, Suite 1950  
Denver, Colorado 80202  
(303)572-1455

DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26 S Rge: 18 E

Elevations: \_\_\_\_\_ Grd: 5291' ungraded KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Co. - Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
2-10-74		<p>PRESENT OPERATION: 2984', drilling. Drilled 721' in past 24 hours.  BIT SUMMARY: #4, 8-3/4" Smith F-4, in at 2243', has drilled 741'.  MUD PROPERTIES: Air mist.  DRILL ASSEMBLY CHARACTERISTICS: 20-30,000# on bit, 45 RPM, 300-325 air pressure.  TIME BREAKDOWN: 23-1/2 hours drilling, 1/2 hour surveys.  NOTE: Hole unloading after increasing soap injection. Putting 1/2 gallon soap down drill pipe on each connection.</p>
2-11-74		<p>PRESENT OPERATION: 3254', drilling in lime and shale. Drilled 270' in past 24 hours.  BIT SUMMARY: #4, 8-3/4" Smith F-4, in at 2243', out at 3001', drilled 758' in 30 hours, #4, rerun, 8-3/4" Smith F-4, in at 3001', has drilled 253'.  MUD PROPERTIES: Air Mist.  DRILL ASSEMBLY CHARACTERISTICS: 20-30,000# on bit, 45 RPM, 300-325 air pressure.  TIME BREAKDOWN: 17-1/2 hours drilling, 2-1/2 hours trips, 3 hours plugged bit.  NOTE: No returns this morning. Increased soap and water injection. Worked drill pipe and got returns to surface.</p>
2-12-74		<p>PRESENT OPERATION: 3495', drilling in Hermosa formation. Drilled 241' in past 24 hours.  BIT SUMMARY: #4, 8-3/4" Smith F-4, in at 2243', out at 3458', drilled 1215' in 59 hours, teeth-1, bearing-1, gauge-4.  MUD PROPERTIES: Air mist.  DRILL ASSEMBLY CHARACTERISTICS: 25,000# on bit, 45 RPM, 325 air pressure, 15 - 6-1/4" drill collars.  TIME BREAKDOWN: 18 hours drilling, 4 hours trips, 2 hours reaming.  NOTE: Laid down bottom hole reamer on last trip.</p>
2-13-74		<p>PRESENT OPERATION: 3798', drilling. Drilled 303' in past 24 hours.  BIT SUMMARY: #5, 8-3/4" Reed F-62, in at 3458', has drilled 340'.  MUD PROPERTIES: Air mist.  DRILL ASSEMBLY CHARACTERISTICS: 20-30,000# on bit, 45 RPM, 325-350 air pressure, 15 - 6-1/4" drill collars.  TIME BREAKDOWN: 22-1/2 hours drilling, 1-1/2 hours surveys.  SURVEYS: 1/4° @ 3500'; 3/4° @ 3798'.  NOTE: Making 100 bbls formation water air-foam drilling. Expect to stop drilling at 4100' and run 7" intermediate casing.</p>
2-14-74		<p>PRESENT OPERATION: 4100', going in to log. Drilled 302' in past 24 hours. Hermosa Formation.  BIT SUMMARY: #5, 8-3/4" Reed F-62, in at 3458', out at 4100', drilled 642' in 43-1/4 hours, T-5, B-5, G-5.  MUD PROPERTIES: Air.  DRILL ASSEMBLY CHARACTERISTICS: 25-30,000# on bit, 45-50 RPM, 300-325 air pressure, 15 - 6-1/4" drill collars, 2 stabilizers.  TIME BREAKDOWN: 19 hours drilling, 1/2 hour circulating with air &amp; foam, 2 hours strap pipe, 1-1/2 hours attempting to load hole with clear water.  SURVEYS: 3/4° @ 3735'; 1-1/2° @ 4100'.  NOTE: Stopped drilling at 4100', circulated 30 minutes with air-foam. Attempted to load hole with water, pumped 400 bbls, hole would not load. Pulled rill pipe, strapped out. Preparing to log.</p>

**JACK GRYNBERG AND ASSOCIATES**  
 Petroleum, Geological, Geophysical and Mining Engineers

1050 - 17th Street, Suite 1950  
 Denver, Colorado 80202  
 (303)572-1455

DAILY DRILLING REPORT

Prospect/Area Mineral Point

Operator: Jack Grynberg & Associates County: Grand State: Utah

Well Name: Mineral Point Federal Well No.: 1-4

Location: SWNE Section: 4 Twp: 26S Rge: 18E

Elevations: \_\_\_\_\_ Grd: 5291' ungraded BF: \_\_\_\_\_ KB: \_\_\_\_\_

Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_

Objective Zone(s): Mississippian Depth: 7200'

Contractor: Calvert Western Exploration Co. - Rig #35

Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
2-4-74		<p>PRESENT OPERATION: 598', drilling in Chinle Formation. Drilled 246' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 315', has drilled 246' in 7-1/2 hours.</p> <p>MUD PROPERTIES: Air &amp; mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 16-18,000# on bit, 50-60 RPM, 150 air pressure, 15 - 6-1/4" drill collars, 6-point reamer on bottom, 8' drill collar, 3-point reamer, 30' drill collar, rubber stabilizer.</p> <p>TIME BREAKDOWN: 7-1/2 hours drilling, 5 hours nipple up and pressure test B.O.P. with air, 1-1/2 hours pick up reamers and trip, 1-1/2 hours test hydrill, 1/2 hour pick up rotating head, 1-1/2 hours drill cement and shoe, 1/2 hour attempt to pressure up surface casing, 6 hours blowing hole.</p>
2-5-74		<p>PRESENT OPERATION: 1165', drilling. Drilled 567' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 315', has drilled 567' in 30-1/2 hours.</p> <p>MUD PROPERTIES: Air and mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 20,000# on bit, 60 RPM, 180 air pressure, 15 - 6-1/4" drill collars.</p> <p>TIME BREAKDOWN: 23 hours drilling, 1 hour surveys.</p> <p>SURVEYS: 1-1/4° @ 855'; 1° @ 916'; 1° @ 1077'.</p>
2-6-74		<p>PRESENT OPERATION: 1452', drilling. Drilled 287' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 315', has drilled 1137' in 51-1/4 hours.</p> <p>MUD PROPERTIES: Air &amp; mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 20,000# on bit, 50 RPM, 200# air pressure.</p> <p>TIME BREAKDOWN: 20-3/4 hours drilling, 2 hours trips, 1 hour surveys, 1/4 hour rig service.</p> <p>SURVEY: 1° @ 1190'; 3/4° @ 1342'.</p> <p>NOTE: Pulled bit to check, checked O.K.</p>
2-7-74		<p>PRESENT OPERATION: 1744', drilling in sandstone. Drilled 292' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 315', has drilled 1429' in 73-1/4 hours.</p> <p>MUD PROPERTIES: Air &amp; mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 20,000# on bit, 50 RPM, 225 air pressure, 15 - 6-1/4" drill collars.</p> <p>TIME BREAKDOWN: 22 hours drilling, 1/4 hour rig service, 1-1/2 hours repair injection pump.</p> <p>SURVEY: 1/2° @ 1552'.</p>
2-8-74		<p>PRESENT OPERATION: 2190', drilling. Drilled 446' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 315', has drilled 1875' in 97 hours.</p> <p>MUD PROPERTIES: Air mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 30,000# on bit, 45 RPM, 250 air pressure, 15 - 6-1/4" drill collars.</p> <p>TIME BREAKDOWN: 23-3/4 hours drilling, 1/4 hour trips.</p> <p>SURVEYS: 3/4° @ 1760'.</p>
2-9-74		<p>PRESENT OPERATION: 2272', drilling. Drilled 80' in past 24 hours.</p> <p>BIT SUMMARY: #3, 8-3/4" Smith F-4, in at 352', out at 2243', drilled 1891' in 101-3/4 hours, #4, 8-3/4" Smith F-4, in at 2243', has drilled 29'.</p> <p>MUD PROPERTIES: Air mist.</p> <p>DRILL ASSEMBLY CHARACTERISTICS: 20-30,000# on bit, 45 RPM, 300 air psi.</p> <p>TIME BREAKDOWN: 6-1/2 hours drilling, 2 hours trips, 10 hours reaming, 5-1/2 hours wait on fuel.</p> <p>NOTE: Drilling with no returns.</p>

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1050 - 17th Street, Suite 1950  
Denver, Colorado 80202  
(303)572-1455

DAILY DRILLING REPORT

Operator: Jack Grynberg & Associates Prospect/Area: Mineral Point County: Grand State: Utah  
Well Name: Mineral Point Federal Well No.: 1-4  
Location: SWNE Section: 4 Twp: 26S Rge: 18E  
Elevations: \_\_\_\_\_ Grd: 5291' ungraded DF: \_\_\_\_\_ KB: \_\_\_\_\_  
Well Type: Wildcat: XX Development: \_\_\_\_\_ Other: \_\_\_\_\_  
Objective Zone(s): Mississippian Depth: 7200'  
Contractor: Calvert Western Exploration Co. - Rig #35  
Spud: 4:00 p.m. 1/30/74 Completed: \_\_\_\_\_ Status: \_\_\_\_\_

DATE	DEPTH	PROGRESS
1/14/74	0'	Moving in rotary tools.
1/15/74	0'	Moving in rotary tools.
1/16/74	0'	Moving in rotary tools.
1/17/74	0'	Moving in rotary tools.
1/18/74	0'	Moving in rotary tools.
1/19/74	0'	Moving in rotary tools.
1/20/74	0'	Moving in rotary tools.
1/21/74	0'	Moving in rotary tools.
1/22/74	0'	Moving in rotary tools.
1/23/74	0'	Moving in rotary tools.
1/24/74	0'	Rigging up rotary tools.
1/25/74	0'	Rigging up rotary tools.
1/26/74	0'	Rigging up rotary tools.
1/27/74	0'	Rigging up rotary tools.
1/28/74	0'	Prep to spud tomorrow.
1/29/74	0'	Rigging up rotary tools.

1-30-74 PRESENT OPERATION: Drilling mousehole.  
BIT SUMMARY: #1, surface bit, 12-1/4" reed Y51J.  
TIME BREAKDOWN: 16 hours drilling rat hole, 8 hours rigging up.  
NOTE: Started drilling rat hole at 4:00 P.M., 1-29-74. Expect to spud sometime this morning.

1-31-74 PRESENT OPERATION: 233', drilling surface hole. Drilled 233' in past 24 hours.  
BIT SUMMARY: #1, 12-1/4" Reed Y51J, in at 0', has drilled 233' in 16 hours.  
MUD PROPERTIES: Air.  
TIME BREAKDOWN: 16 hours drilling, 8 hours drilling mouse hole.  
SURVEYS: 1/4" @ 83', 1/4" @ 144', 1/4" @ 233'.  
NOTE: Spudded at 4:00 P.M., 1-30-74.

2-1-74 PRESENT OPERATION: 352', W.O.C. Drilled 119' in past 24 hours.  
BIT SUMMARY: #1, 12-1/4" Reed Y51J, in at 0', out at 350', drilled 352' in 15-1/4 hours.  
TIME BREAKDOWN: 2 hours drilling, 4 hours surveys, 1 hour attempt to circulate with water, 1 hour cementing, 6-1/2 hours wait on 1" pipe and cement, 1 hour cementing with 1" pipe, 2-1/2 hours run surface casing, 5-1/2 hours W.O.C.  
CASING JOB: Ran 12 joints of 9-5/8" 32.30# H-40 casing, landed at 341'. Cemented with 200 sacks Class "G" cement with 2% CaCl. 92 sacks Portland regular set with 1" pipe with returns to surface.

2-2-74 PRESENT OPERATION: 352', nipping up. No footage past 24 hours. Siltstone.  
BIT SUMMARY: #2 - 8-3/4" Reed Y11-A, in at 0, out at 315'. Drilled 315' in 9-1/2 hours.  
TIME BREAKDOWN: 9-1/2 drilling out cement, 1/2 trip, 4 wait on cement, 2 cut casing off, 7 deepen cellar and prepare to nipple up.

2-3-74 PRESENT OPERATION: 352', nipping up. Drilled 0' in past 24 hours. Chinle Formation.  
BIT SUMMARY: #2, 8-3/4" Reed Y11A, in at 0', out at 315', drilled 315' in 9-1/2 hours, T-3, B-2, G-I.  
MUD PROPERTIES: Air.  
TIME BREAKDOWN: 24 hours nipping up.

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT THIS COPY TO THE BUREAU OF LAND MANAGEMENT (Other in: verse side) **RIPLICATE\*** (Other in: verse side)

Form approved. Budget Bureau No. 42-R1424.

**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 "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.

USA-U-11831

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

None

8. FARM OR LEASE NAME

Mineral Point

9. WELL NO.

1-4 Federal

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA

Sec. 4, T 26 S - R 18 E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Jack Grynberg and Associates

3. ADDRESS OF OPERATOR  
1050 - 17th Street, Suite 1950, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface  
1862' FEL, 778' North of Half Section Line.  
(SW/4 NE/4 Sec. 4, T 26 S - R 18 E

14. PERMIT NO.  
43-019-30182

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5291' ungraded ground

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)

FULL OR ALTER CASING   
MULTIPLE COMPLETION   
ABANDON\*   
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)

REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

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

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.)\*

Casing Record: 9 5/8" @ 341 Circ.  
7" @ 4100 w/100 sx (cmt. top @ 3400 from Sonic)

Plugging Record: \*

Log Formation Tops:

35 sx 7300-7100  
35 sx 4200-4100 to be adjusted according to caliper

35 sx 7" casing stub  
35 sx 1550-1450  
50 sx 350-Up  
10 sx Marker

APPROVED BY DIVISION OF OIL & GAS CONSERVATION

DATE 4-9-74

BY Cecil D. Gritz

Chinle 530  
Moenkopi 881  
White Rim 1485  
Rico 2180  
Hermosa 2690  
Paradox 4117  
Cane Crk. 6750  
Lost Salt 7190  
Mississippian 7426  
Driller TD 7695  
Logger TD 7693

Will plug to 4100 before moving off, will move on casing pulling unit to finish abandonment within 2 months.

\*Verbal instructions from G.R. Daniels to Cecil D. Gritz 3/27/74, 3:45 p.m.

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

SIGNED *Cecil D. Gritz*

Cecil D. Gritz  
Petroleum Engineer

DATE 3/27/74

(This space for Federal or State office use)

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

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

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

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

USA-U-11831

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

-----

7. UNIT AGREEMENT NAME

None

8. FARM OR LEASE NAME

Mineral Point

9. WELL NO.

1-4 Federal

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 4, T 26 S - R 18 E

12. COUNTY OR PARISH

Grand

13. STATE

Utah

**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 "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Jack Grynberg and Associates

3. ADDRESS OF OPERATOR  
1050-17th Street, Suite 1950, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
1862' FEL, 778' North of Half Section Line.  
(SW/4 NE/4 Sec. 4, T 26 S - R 18 E

14. PERMIT NO.  
43-019-30182

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5291' ungraded ground

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO :

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

SUBSEQUENT REPORT OF :

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

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

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.)\*

Casing Record: 9 5/8" @ 341 circ.  
7 " @ 4100 w/100 sx (cmt. top @ 3400 from Sonic)

Plugging Record: \*

35 sx 7300-7100 to be adjusted according  
35 sx 4200-4100 to caliper

Log Formation Tops:

Chinle	530
Moenkopi	881
White Rim	1485
Rico	2180
Hermosa	2690
Paradox	4117
Cane Crk.	6750
Lost Salt	7190
Mississippian	7426
Driller TD	7695
Logger TD	7693

Plugged well to 4100'. Will move on casing pulling unit to finish abandonment and complete plugging procedure within 2 months.

\*Verbal instructions from G.R. Daniels to Cecil D. Gritz 3/27/74, 3:45 p.m.

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

SIGNED *Cecil D. Gritz*

TITLE Cecil D. Gritz  
Petroleum Engineer

DATE 3/29/74

(This space for Federal or State office use)

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

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

5  
1814  
P.C. 11/2

May 29, 1974

Mr. Gerald Daniels  
U.S. Geological Survey  
8416 Federal Building  
125 South South Street  
Salt Lake City, Utah 84111

Re: #1-4 Federal Mineral Point  
Sec. 4, T 26 S - R 18 E  
Grand County, Utah

Dear Mr. Daniels:

Enclosed please find the necessary copies of our well completion report and final drilling report on the subject well. We have not received final prints of the well logs from Schlumberger in our office. These will follow later.

We have experienced difficulty in obtaining equipment to attempt to recover the 7" intermediate casing and complete the plugging of the well per your original instructions. We are attempting to have this done as soon as possible.

If you have any objection to delaying this operation beyond the two month period which has now expired, please advise and I will attempt to make other plans.

Very truly yours,

JACK GRYNBERG AND ASSOCIATES



Cecil D. Gritz  
Drilling and Production Manager

CDG:erc

cc: Cleon Feight

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

SUBMIT IN DUPLICATE\*

(S her in-  
st ns on  
re 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 \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other D & A

2. NAME OF OPERATOR  
Jack Grynberg and Associates

3. ADDRESS OF OPERATOR  
1050-17th Street, Suite 1950, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1862' FEL, 778' North of Half Section Line  
At top prod. interval reported below (SW/4 NE/4 Sec. 4, T 26 S - R 18 E  
At total depth \_\_\_\_\_

14. PERMIT NO. 43-019-30182 DATE ISSUED 10/26/73

5. LEASE DESIGNATION AND SERIAL NO.  
USA-U-11831

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
\_\_\_\_\_

7. UNIT AGREEMENT NAME  
None

8. FARM OR LEASE NAME  
Mineral Point

9. WELL NO.  
1-4 Federal

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 4, T 26 S - R 18 E

12. COUNTY OR PARISH Grand 13. STATE Utah

15. DATE SPUNDED 1/30/74 16. DATE T.D. REACHED 3/28/74 17. DATE COMPL. (Ready to prod.) NA 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5291 GL 5302 KB 19. ELEV. CASINGHEAD 5291

20. TOTAL DEPTH, MD & TVD 7696 MD 21. PLUG, BACK T.D., MD & TVD \_\_\_\_\_ 22. IF MULTIPLE COMPL., HOW MANY\* NA 23. INTERVALS DRILLED BY → ROTARY TOOLS 0-TD CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
Dry Hole 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN DLL/GR, BHCS/GR/Cal 27. WAS WELL CORED No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
<u>9 5/8 "</u>	<u>32.30</u>	<u>341'KB</u>	<u>12 1/4"</u>	<u>292 sacks</u>	<u>None</u>
<u>7"</u>	<u>23</u>	<u>4100'KB</u>	<u>8 3/4"</u>	<u>100 sacks</u>	<u>None*</u>

\* Will attempt to recover 7" and complete plugging

29. None LINER RECORD 30. None TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)  
None

32. None ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* None PRODUCTION

DATE FIRST PRODUCTION \_\_\_\_\_ PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) \_\_\_\_\_ 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

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.) NA TEST WITNESSED BY \_\_\_\_\_

35. LIST OF ATTACHMENTS  
Drilling Report (Mud Log sent previously), Electric Logs will follow later.

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

SIGNED Cecil D. Gritz TITLE Drilling & Production Mngr. DATE 5/29/74

\*(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 33.

**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.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS	
				MEAS. DEPTH	TRUE VERT. DEPTH
				530	
				881	
				1485	
				2180	
				2690	
				4117	
				6750	
				7190	
				7426	
				7695	
				7693	

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

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name and Number FEDERAL #1-4 MINERAL POINT 43-019-30182

Operator JACK GRYNBERG & ASSOCIATES

Address 1050 17TH STREET SUITE 1950, DENVER, COLORADO

Contractor CALVERT WESTERN EXPLORATION CO

Address TULSA OKLA

Location 1/4, NE 1/4, Sec. 4, T. 26 S., R. 18 E., GRAND County.

Water Sands:

	<u>Depth:</u>		<u>Volume:</u> Flow Rate or Head -	<u>Quality:</u> Fresh or Salty -
	From -	To -		
1.	<u>NO KNOWN FRESH WATER SANDS</u>			
2.				
3.				
4.				
5.				

(Continue on Reverse Side if Necessary)

Formation Tops:

WINGATE SURFACE	MOLAS 7366
CHINLE 540	MISS 7426
SHINARUMP 840	
MOENKOPI 890	
CUTLER 1395	
WHITE RIM 1485	
HERMOSA 2690	
PARADOX 4114	

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

May 30, 1974

Jack Grynberg & Associates  
1050 - 17th Street  
Suite 1950  
Denver, Colorado 80202

Re: Well No. Mineral Point Fed. 1-4  
Sec. 4, T. 26 S, R. 18 E,  
Grand County, Utah

Gentlemen:

*This letter is to advise you that the electric and/or radioactivity logs for the above referred to well are due and have not as yet been filed with this office.*

*In order to keep our files accurate and complete, it would be appreciated if said logs were forwarded at your earliest convenience.*

*Very truly yours,*

DIVISION OF OIL & GAS CONSERVATION

SCHEREE WILCOX  
EXECUTIVE SECRETARY

:SW

PI

**JACK GRYNBERG AND ASSOCIATES**  
PETROLEUM, GEOLOGICAL, GEOPHYSICAL AND MINING ENGINEERS

h  
1050 17th STREET • SUITE 1950 • DENVER, COLORADO 80202 • PHONE 303 - 572-1455

TELEX: 45-884  
CABLE: GRYNBERG  
DENVER, COLORADO

January 29, 1976

Mr. E.W. Guynn  
U.S. Geological Survey  
8426 Federal Building  
Salt Lake City, Utah 84138

Re: Federal 1-4 - Mineral Point  
Section 4, T 26 S - R 18 E  
Grand County, Utah

Dear Mr. Guynn:

As a follow-up to our previous correspondence concerning the referenced well, the final plugging procedures have been completed. The enclosed Subsequent Report of Abandonment is re-submitted as you requested.

The surface disturbance has been restored to the satisfaction of the local Bureau of Land Management representative. The BLM indicated to our drilling foreman at the site that he would notify your office by letter of completion of the necessary surface work, and release Jack Grynberg and Associates from any further responsibility.

Please advise if you need anything further concerning this matter.

Very truly yours,

JACK GRYNBERG AND ASSOCIATES



Cecil D. Gritz  
Drilling and Production Manager

CDG:erc



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

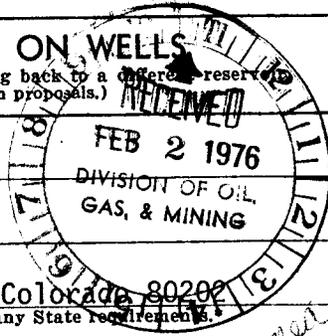
SUBMIT IN TRIP DATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

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 "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	5. LEASE DESIGNATION AND SERIAL NO. <b>USA-U-11831</b>
2. NAME OF OPERATOR <b>Jack Grynberg and Associates</b>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME -----
3. ADDRESS OF OPERATOR <b>1050-17th Street, Suite 1950, Denver, Colorado, 80202</b>	7. UNIT AGREEMENT NAME <b>None</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface <b>1862' FEL, 778' North of Half Section Line (SW/4 NE/4 Sec. 4, T 26 S - R 18 E)</b>	8. FARM OR LEASE NAME <b>Mineral Point</b>
14. PERMIT NO. <b>43-019-30182</b>	9. WELL NO. <b>1-4 Federal</b>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>5291' ungraded ground</b>	10. FIELD AND POOL, OR WILDCAT <b>Wildcat</b>
	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 4, T 26 S - R 18 E</b>
	12. COUNTY OR PARISH <b>Grand</b>
	13. STATE <b>Utah</b>



*Abandoned Well*

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	

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

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.)\*

Casing Record: 9 5/8" @ 341 circ.  
7" @ 4100w/100sx (cmt. top @ 3400 from Sonic)

Plugging Record:

35 sx 7300-7100

35 sx 4260-4060

Displaced down 9 5/8" x 7" annulus sufficient cement for minimum cement plug 345-295. Pump in indicated probable lost circ. behind 7" casing.

Placed 10' sfc. plug in annulus.

Placed 10 sx sfc. plug with marker in top of 7" casing.

Cleaned up and restored all sfc. disturbance.

Log Formation Tops:

Chinle	530
Moenkopi	881
White Rim	1485
Rico	2180
Hermosa	2690
Paradox	4117
Cane Crk.	6750
Lost Salt	7190
Mississippian	7426
Driller TD	7695
Logger TD	7693

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

SIGNED

*Cecil D. Gritz*  
Cecil D. Gritz

TITLE Drilling & Production Mngr. DATE 1/29/76

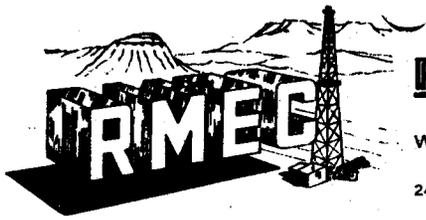
(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



# ROCKY MOUNTAIN GEO-ENGINEERING CO.

WELL LOGGING — CORE AND WATER ANALYSIS

2450 INDUSTRIAL BLVD.

PHONE 243-3044

GRAND JUNCTION, COLORADO 81501

ZONE OF INTEREST NO. 1

INTERVAL: From 5707 To 5718

DRILL RATE: Avg 5 Thru 2 Below 10

### MUD GAS-CHROMATOGRAPH DATA

	Total Gas	C1	C2	C3	C4-i	C4-n	C5	He
Before	20	2500	400	-				
During	150	30M	6M	1200	100	-	-	
After	80	18M	2880	450	50	-	-	

Type gas increase: Gradual  Sharp

Gas variation within zone: Steady  Erratic  Increasing  Decreasing

CARBIDE HOLE RATIO:  $\frac{\text{GRAMS}}{\text{READING}} \times \text{Min. in Peak} = \underline{3}$  Sensitivity: Poor  Fair  Good

FLUO: Mineral  Even  Spotty   
 None  % in total sample \_\_\_\_\_  
 Poor   
 Fair  % in show lithology \_\_\_\_\_  
 Good  COLOR: \_\_\_\_\_

CUT: None  Streaming \_\_\_\_\_  
 Poor  Slow   
 Fair  Mod   
 Good  Fast   
 COLOR: \_\_\_\_\_

STAIN: None  Poor  Fair  Good  Live  Dead  Residue  Even  Spotty  Lt.  Dk.

POROSITY: Poor  Fair  Good  Kind INTERGRANULAR FRACTURES

LITHOLOGY SHALE BLACK CARB BLEEDING GAS

SAMPLE QUALITY FAIR

NOTIFIED C. GRITZ REMARKS: "G" CLASTIC ZONE OF THE PARADOX SALT

ZONE DESCRIBED BY: J. CLUTTER

GEOLOGICAL REPORT

JACK GRUNBERG & ASSOCIATES

Federal #1-4 - Mineral Point

NE  $\frac{1}{4}$  Section 4, T26S, R18E

Grand County, Utah

J. R. C. Lutter

ROCKY MOUNTAIN GEO-ENGINEERING, COMPANY

Grand Junction, Colorado 81501

## WELL SUMMARY

OPERATOR: Jack Grynberg & Associates  
WELL: Federal #1-4  
AREA: Mineral Point  
LOCATION: 778 JSL 1862 JFL of the NE  $\frac{1}{4}$  of Sec. 4, T26S, R18E,  
Grand County, Utah  
ELEVATION: 5291 Gr. 5302 KB  
TOTAL DEPTH: 7696 Driller  
CONTRACTOR: Calvert Western Exploration Company - Rig # 35  
RIG TYPE: EMSCO GB-500  
DRILL STEM TESTS: None  
DATES: 2-1-74 to 3-28-74  
CSG: 9 5/8 - 341 - 7" to 4100  
LOGS: Mud Log: Rocky Mountain Geo-Engineering Company  
Schlumberger: Induction - Gamma Ray - Surface to 4100  
Dual Induction - Later Log - 4100 to TD  
Sonic - Gamma Ray - 4100 to TD

Spd: 1/30/74

Grynberg Mineral Pt Fed 1-4  
FORMATION TOPS

Grand Gulf  
T26 S R18 E Sec 4 NW NE  
Ord = 5291'  
Electric Log

	<u>Sample</u>	
<b>Triassic</b>		
Wingate	Surface	Surface
Chinle	540	540
Shinarump	840	830
Moenkopi	890	900
<b>Permian</b>		
Cutler	1395	1380
White Rim	1490	1485
Rico		2310
<b>Pennsylvanian</b>		
Hermosa Limestone	2700	2690
Paradox	4117	4114
Cane Creek	6750	6755
Lower Hermosa	7280	
Molas	7360	7366
<b>Mississippian</b>		
(Leadville?) Limestone	7425	7427
(Madison?) Dolomite	7635	7630

TD 7696'

No DST n Stems

## SAMPLE DESCRIPTION

- 352 - 380 SS-wh, VFG, Mostly lse  
 380 - 440 SS-ab w/tr Gy, Sh  
 440 - 500 SS-red, VFG, p/cm, mostly lse, sm hd & ti  
 500 - 530 SS-ab grdg to S.lstat-red, slty  
 530 - 540 SS-red, VFG, mostly lse  
 540 - 575 Chinle 540 - S.lstat & Sh - Red, slty  
 575 - 590 SS-red, wh, VFG, hd, ti w/Sh-brn, w/S.lstat-firm, sdy  
 590 - 610 Sh-red, brn, slty  
 610 - 635 SS-wh, VFG, S&P, w/cm, sl Calc, w/Sh-gy, slty, sl Arkosic  
 635 - 645 Sh-red, brn, slty, tr.Sh-gr, slty  
 645 - 730 SS-wh, .lt gy, VFG, w/cm, v. slty, sl S&P, Carb, w/Sh-gr, slty  
 730 - 740 Sh-gy, slty, w/tr LS-gy, Arg  
 740 - 760 SS-ab w/Sh-red, sm gr, S.lty, Calc  
 760 - 840 Sh-red, sm gr, slty, Calc  
 840 - 860 Shinarump 840 - SS-tan, VFG, sl Arkosic  
 860 - 865 Sh-ab  
 865 - 880 SS-wh, VFG, clean  
 880 - 890 SS-ab w/Sh-brn, blk  
 890 - 950 Moenkopi 890 - Sh-brn, blk, sm sdy  
 950 - 1000 Sh-brn, blk  
 1050-1075 Sh, brn, blk, sm slty  
 1075-1100 Sh-brn, red, slty, w/tr gy Sh  
 1100-1125 Sh-brn, gy, v. slty - grdg to S.lstat w/sm SS-wh, VFG  
 1125-1150 S.lstat-wh, .lt gy  
 1150-1190 S.lstat-ab w/sm .lav SS-VFG & Sh  
 1190-1205 Sh-red, brn, slty, Calc  
 1205-1215 LS-wh, VFXln, w/dead oil str in frac w/poor gr floor-fair to stg yel cut  
 1215-1265 Sh-brn, blk, sm sdy  
 1265-1280 SS-wh, VFG, w/cm, Calc, w/sm SS-org, VFG, slty  
 1280-1300 Sh-brn, slty, w/SS-org, ab  
 1300-1350 Sh-brn, v. slty, w/SS-org, wh, VFG, slty  
 1350-1395 Sh-brn, v. slty  
 1395-1405 SS-wh, VFG, hd, ti  
 1405-1435 Sh-brn, v. slty, w/SS-wh, VFG, hd, ti w/lse rd SS-gy  
 1435-1445 SS-ab  
 1445-1455 Sh-brn, v. slty, grdg to S.lstat

- 1455-1485 SS-clr, FG, mostly lse  
 1485-1530 White Rim 1485 - SS-wh, clr, FG, p/cm, rd, mostly lse w/tr Gyp  
 1530-1580 SS-ab  
 1590-1600 SS-clr, FG, p-w/cm, w/sm VC Qtz gra  
 1600-1660 SS-ab w/Sh-red, v. slty  
 1660-1675 Cutler 1660 - Sh-Red, v. S.lt, S.ltst-red, sm gr Sh  
 1675-1690 SS-red, clr, F-CG, mostly lse w/Sh-red, slty  
 1690-1705 Sh-red, v. S.lty, w/S.ltst-red  
 1705-1730 S.ltst-red, slty, sdy, w/SS-red, VFG, Arkosic  
 1730-1740 SS-red, onrg, wh, VF-CG, Arkosic  
 1740-1765 Sh-red  
 1765-1810 Sh-red-brn, slty, sdy, Mica  
 1810-1865 SS-red, onrg, F-MG, Arkosic  
 1865-1895 Sh-red-brn, slty, Mica, w/SS-red, onrg, FG, Arkosic  
 1895-1925 Sh & SS ab -- Samples v. poor  
 1975-2610 No samples - drilled w/no returns  
 2610-2640 SS-red, brn, FG, Arkosic w/sm Sh-red, slty w/Sh-brn  
 2640-2665 SS-lt gy, gr, FG, w/cm, S&P, w/Sh-red, gy, sdy  
 2665-26680 SS-red, gy, FG, Ark, w/Sh ab  
 2680-2700 SS-Red, pk, F-CG, Arkosic w/Sh-red, gy  
 2700-2715 Hemosa 2700 - LS-dk brn, tan, crm, fxl  
 2715-2725 Sh-dk gy, slty  
 2725-2795 LS-gy, fxl, tr for  
 2795-2805 Sh-gy, slty  
 2805-2860 SS-wh, clr, VF-CG, sub rd, sub ang, p/cm, p/sort, Calc, glau  
 2860-2910 LS-gy, tan, fxl, w/SS-ab  
 2910-2955 LS-gy, tan, fxl, suc w/SS-ab  
 2955-3020 LS-gy, dk gy, tan, crn, fxl, sm Arg, dra w/SS-wh, red, Arkosic  
 3020-3040 SS-wh, FG, Calc/cm, tr. Cht  
 3040-3060 LS-gy, wh, tan, VFxl, sdy  
 3060-3090 No Returns  
 3090-3130 LS-gy to dk gy, VFxl, dra w/Sh-dk gy, Calc, slty  
 3130-3150 LS & Sh ab  
 3150-3180 Interbedded LS & Sh  
 3180-3220 LS-gy, dk gy, tan, Arg, dra, sm VFxl w/Sh-gy, dk gy, slty, Calc  
 3220-3225 SS-VF-FG, lse  
 3225-3240 LS & Sh ab  
 3240-3270 No Returns  
 3270-3290 LS-gy, dk gy, crn, Arg, dra to fxl, Sh-dk gy, slty, sl Calc w/SS-wh, pk, onrg, F-CG, Ark

- 3295-3340 Sh-dk gy, slty, Calc, w/LS ab
- 3340-3360 LS-tan, gy, cm, VJ-Fxl, w/tr Cht, tr Fos, w/Sh-dk gy, slty
- 3360-3390 No Returns
- 3390-3420 LS-lt tan, gy, fxl, v. Fos, w/Sh ab
- 3420-3430 Sh-dk gy, gy, slty, Calc
- 3430-3460 LS & Sh ab (returns erratic - samples v. poor)
- 3460-3500 LS & Sh ab
- 3500-3540 Pred LS-cm, dns, w/Fos frag, sm Sh-gy, slty w/SS-clr, VJG, Ang, lse
- 3540-3560 Partial Returns - mostly cvgs
- 3560-3605 SS-wh, clr, FG, Calc, fri, sm rd, sl Glau
- 3605-3620 LS-tan, gy, Fxl, dns
- 3620-3635 Sh-dk gy, slty, Calc, w/Cht
- 3635-3670 LS-tan, gy, Fxl, dns
- 3670-3745 LS-lt gy, Fxl, dns, slty, w/Sh-gy, dk gy, Calc
- 3745-3760 SS-clr, VJG, lse
- 3760-3790 LS-cm, Fxl, dns, slty
- 3790-3805 SS-clr, VJ-FG, lse, p/cm (Partial Returns)
- 3805-3840 LS-ab w/SS-clr, rd, onrg, VJ-MG, lse to w/cm, Calc, Arkosic in pt. w/Sh-Rd, gr, mottled, sm v. slty
- 3840-3870 No Returns
- 3870-3880 VPS - mostly cvgs
- 3880-3910 LS-gy, tan, Fxl, w/Sh-rd, slty
- 3910-3930 LS-tan, gy, Fxl
- 3930-3960 No Returns
- 3960-4000 LS-lt gy, gy, Fxl, w/Cht
- 4000-4040 VPS-mostly cvgs-Sh-gy, dk gy, Calc, slty, w/LS ab
- 4040-4065 LS-lt gy, gy, Fxl
- 4065-4090 LS & Sh ab
- 4090-4100 LS-ab (Ran corr log & "7" (SG to 4100)
- 4100-4115 LS-ab
- 4115-4195 Paradox Salt 4117 - Anhy, wh, xln, (no Salt present-Salt going into Solution?)
- 4195-4230 LS-lt gy, VJ-Fxl, shly w/Anhy inclus - Sh-blk, slty
- 4230-4240 Sh-gy, dk gy, sft to firm, w/Anhy & LS ab
- 4240-4245 SS-clr, wh, FG, Calc
- 4245-4255 Sh-gy, dk gy, slty, w/Anhy
- 4255-4275 SS-clr, wh, onrg, Ark, lse w/Sh & LS ab
- 4275-4285 Sh-dk gy, Calc, w/Anhy
- 4285-4315 Salt-clr, xln
- 4315-4340 Sh-gy, dk gy, Calc, slty, w/Anhy

4340-4380 Sh-gy, dk gy, Calc, slty  
4380-4390 Sh-ab w/LS-gy, Arg, marly  
4390-4400 Salt  
4400-4435 LS-gy, arg, marly  
4435-4555 Salt  
4555-4565 LS-gy, VJxln, slty, arg  
4565-4585 Salt-clr, wh, xln  
4585-4600 LS-ab w/Sh-gy, v. slty  
4600-4610 Salt-wh, clr, xln  
4610-4620 Sh-lt gy, v. slty, w/Anhy & Salt  
4620-4790 Salt-wh, clr, xln  
4790-4800 Sh-lt gy, v. sdy, slty  
4800-4810 Salt w/Anhy  
4810-4825 Anhy-wh, xln, w/S.ltat-dk gy  
4825-4950 Salt-clr, wh, xln, w/Anhy-wh, xln  
4950-4965 Sh-dk gy, Carb, slty  
4965-4985 Sh-blk, Carb  
4985-5015 Salt-clr, xln  
5015-5035 LS-tan, VJxln, w/Sh-dk gy, slty  
5035-5045 Sh-blk, Carb, Calc, w/Anhy, tr. Calcite filled frac, in blk Sh  
5045-5050 Salt  
5050-5090 Sh-dk gy, blk, Carb, Calc, w/sm LS-gy, arg w/Anhy-wh, xln  
5090-5240 Salt-wh, clr, xln, w/sm blk Sh str  
5240-5280 Sh-gy, Carb, w/Anhy-wh, xln  
5280-5305 S.ltat-gy, Calc, w/Sh-blk, Carb, tr. dead oil stain  
5305-5345 Salt  
5345-5370 Sh-blk, Carb, w/Salt  
5370-5405 Salt  
5405-5425 Sh-dk gy, blk, Carb, w/Argy-sft, wh  
5425-5435 Salt w/Anhy  
5435-5485 Sh-dk gy, blk, sl Calc  
5485-5510 S.ltat-lt gy, sdy, Calc, w/LS-wh, VJxln  
5510-5540 Salt  
5540-5590 Salt w/Anhy  
5590-5700 Salt  
5700-5740 Sh-blk, Carb, sl Calc, bleeding Gas  
5740-5790 Salt  
5790-5800 S.ltat-gy, sdy, Calc w/tr. LS-wh, VJxln  
5800-5885 Salt w/blk, Carb, Sh

- 5885-5905 Sh-dk gy, blk, Carb, w/Anhy  
 5905-5915 S.Lt-st-gy, v. Calc, w/Anhy  
 5915-6030 Salt-w  
 6030-6050 S.Lt-st-gy, v. Calc, w/Anhy, tr. Pyrite  
 6050-6060 Sh-dk gy, blk, Carb, w/Anhy  
 6060-6090 Salt  
 6090-6105 Dolo-gy, Arg, tr. Pyrite  
 6105-6160 Salt w/blk Sh  
 6160-6165 Anhy-wh, sft  
 6165-6200 Salt w/blk Sh  
 6200-6205 Sh-blk, Carb  
 6205-6440 Salt w/Sh-blk, Carb, Calc  
 6440-6460 Sh-Lt gy, Dolo, slty  
 6460-6480 Salt w/Anhy  
 6480-6750 Salt w/Sh-blk, Carb  
 6750-6770 LS-gy, Arg, tr. red Sh & Cht  
 6770-6775 Sh-gy, brn, v. Dolomitic  
 6775-6790 Anhy-w/Sh-gy, brn, Dolo  
 6790-6800 Anhy & Salt  
 6800-6820 Anhy-wh, chalky, sft, tr. red Sh & Cht  
 6820-6830 Ab w/Ls-Lt gy, vfxln, Arg  
 6830-6840 Dolo-Lt gy, Fxln, slty w/Anhy + Sh ab  
 6840-6880 Salt w/Sh-blk, Carb, Calc  
 6880-6890 LS-gy, Arg, w/Anhy-wh, chalky  
 6890-6900 Anhy-sft, chalky  
 6900-6915 Anhy-ab w/Dolo-gy, Arg, tr. Pyrite, Sh-Lt gy, slty, v. Calc  
 6915-6990 Salt-cln, xln, w/Sh-blk, Carb, Calc  
 6990-7000 Dolo-gy, Arg, drs  
 7000-7010 LS-gy, dk brn, Arg, drs w/Anhy-wh xln, tr. Dolo  
 7010-7025 Sh-dk gy, blk, Carb, v. Calc, w/Anhy ab  
 7025-7100 LS-Lt gy, gy, Arg, drs to Vfxln w/Anhy-sft, wh, chalky w/sm Sh-gy, dk gy, Calc  
 7100-7110 Anhy-wh, sft, chalky sm/xln, w/LS-ab  
 7110-7130 Dol-Lt gy, Fxln, slty w/Anhy-ab  
 7130-7150 LS-Lt gy, Arg, w/Anhy ab  
 7150-7170 Salt-cln, xln  
 7170-7175 Sh-brn, slty, Calc, w/Asphatic residue-w/LS ab  
 7175-7190 Salt-cln, xln  
 7190-7215 Sh-blk, Carb, Calc, w/LS + Sh ab  
 7215-7230 Dol-gy, Arg, w/Anhy  
 7230-7235 Sh & LS ab

- 7235-7240 Dol-brn, Fxln, w/Anh  
 7240-7250 LS-gy, tan, sm xln, Arg, w/Anh  
 7250-7280 Sh-dk gy, v. Calc w/LS-dk gy, Arg, drs,  
 7280-7290 Lower Hemosa-7280- LS-gy, Arg, drs, sft, w/LS-dk brn, VFxln  
 7290-7300 LS-brn, lt gy, Micro-xln  
 7300-7310 LS-gy, Arg, drs, sft  
 7310-7320 LS-brn, VFxln  
 7320-7330 Ab w/LS-marly, wh, sft, tr. dead oil str  
 7330-7340 LS-brn, tan, VF-Fxln, sm fragmental, tr. Fl & Cut-dead oil str  
 7340-7360 LS-cm, tan, brn, VF-Fxln, tr. Foss, tr. Cht-org, clr  
 7360-7375 Molaa-7360-Sh-red, sm gy, gr, sft, Bent w/Cht-clr, red  
 7375-7395 Sh-red, sm gr, gy, w/LS-tan, wh, VFxln, sm chalky  
 7395-7425 Sh-red, sm gr, gy, mott w/LS-brn, VFxln  
 7425-7440 Mississippian - Leadville-7425 - LS-wh, chalky, drs, w/LS-lt gy, VFxln,  
 tr. Cht  
 7440-7450 LS-ab w/LS-tan, VFxln, w/Cht-brn, gy  
 7450-7470 LS-lt gy, brn, VFxln w/Sh-wh, chalky w/Cht-brn, tr. Calcite  
 7470-7490 LS-wh, tan, gy, VFxln  
 7490-7500 LS-wh, clr, tan, VFxln  
 7500-7515 Dol-brn, wh, VFxln  
 7515-7540 LS-lt gy, wh, VFxln, sm Chalky  
 7540-7550 Dol-tan, Fxln  
 7550-7570 LS-wh, VF-Fxln, w/Dol-tan, F-Mxln  
 7570-7590 LS-wh, clr, VF-Mxln, Dol, sm wh, Chalky, drs, w/tr. Sh-red, gr, tr. Cht  
 7590-7615 LS-wh, clr, tan, VF-Fxln, Dol-tr Sh-red  
 7615-7625 Dol-brn, VFxln  
 7625-7635 LS-wh, clr, VF-Fxln, v. dol, w/tr. red Sh  
 7635-7645 Ab w/Dol-brn, VFxln  
 7645-7675 Dol-wh, clr, Fxln, w/LS-wh, sft, Chalky, tr. Sh-red, tr. Cht  
 7675-7695 Dol-wh, to clr, VF-Fxln, v. hd, Sil, glassy, w/Cht-clr, xln  
 7695 JD

BIT RECORD		SURVEYS				FJ. PER/DAY			REMARKS			
RUN	TYPE	SN	FJG	HOURS	SLOPE	DEPJH	DATE	MDNJ	DEPJH	FJ	CASING:	
							1-30		0	0	Dnlg rat hole	
1	Reed Y1SJ	0	352		$\frac{1}{4}$	144	1-31		0	352	Dnlg 12 $\frac{1}{4}$ Surface hole	
2	Reed YJ1A	0	315		$\frac{1}{4}$	203	2-1		352	0	Run surface CSG	
3	Smith J-4	352	1891	101	3/4	1	2-2		352	0	Dnlg out cmt & nipples up w/Bit #2	
4	Smith J-4	2243	1215	59	$\frac{1}{4}$	519	2-3		352	38	Nipples up-Dnlg w/Bit #3	
5	Reed J-62	3458	642	43 $\frac{1}{4}$	$\frac{1}{4}$	855	2-4		390	646	Dnlg w/air-air mist	
6	HJC-OWN-g	4100	98	5	1	916	2-5		1036	331	Dnlg-trip-rerun Bit #3-dnlg	
7	HJC-g-33	4198	178	54 $\frac{1}{2}$	1	1077	2-6		1367	295	Dnlg	
8	Smith J-5	4366	14	9 $\frac{1}{2}$	1	1190	2-7		1662	373	Lost circ 1979-dry drill	
9	Smith V-2	4380	186	19 $\frac{1}{2}$	3/4	1342	2-8		2035	208	Trip for Bit #4-Ream 200' to bottom	
10	HJC-OWN-g	4596	196	22	$\frac{1}{2}$	1552	2-9		2243	502	Dnlg w/no returns-dnlg w/full return	
11	Smith V-2	4792	185	33 $\frac{1}{2}$	3/4	1760	2-10		2745	378	Trip to check Bit #4-dnlg	
12	Smith V-2	4977	105	32 $\frac{1}{2}$	3/4	2282	2-11		3123	335	Dnlg-Trip for NB #5	
13	Rerun #7	5082	210	39 $\frac{1}{4}$	$\frac{1}{4}$	2984	2-12		3453	279	Trip-Dnlg	
14	HJC-OWN-g	5292	184	48 $\frac{1}{2}$	$\frac{1}{4}$	3523	2-13		3737	311	Dnlg	
15	HJC-OWN-g	5476	568	57	3/4	3798	2-14		4048	52	Run Correlation logs	
16	Smith V-2	6044	406	52 $\frac{1}{4}$	$\frac{1}{2}$	4100	2-15		4100	0	Log-Run 7" int	
17	RR Bit #7	6451	260	35 $\frac{1}{2}$	$\frac{1}{4}$	4215	2-16		4100	97	Nipples up-dnlg	
18	HJC-OWN-g	6711	192	53 $\frac{1}{4}$	2	3/4	4366	2-17	4197	162	Dnlg-trip for NB#7-Lost circ	
19	HJC-OWN-g	6903	120	30	6	3/4	4594	2-18	4259	73	@ 4198-Dnlg	
20	HJC-OWN-g	7023	68	28 $\frac{1}{4}$	6	1/4	4601	2-19	4332	34	Dnlg-trip for Bit #8	
21	RR #8	7091	9	8 $\frac{1}{4}$	6	1/4	4655	2-20	4366	59	Dnlg-trip for NB #9	
22	HJC-OWN-g	7100	37	17	3/4	6 $\frac{1}{4}$	4718	2-21	4425	235	Dnlg-trip for NB #10	
23	HJC-OWN-g	7137	77	30	8		4780	2-22	4655	160	Dnlg	
24	HJC-OWN-g	7214	28	13	3/4	7	3/4	4859	2-23	4815	130	Dnlg-trip for NB #11
25	HJC-g-33	7242	161	85 $\frac{1}{4}$	8		4921	2-24	4945	81	Dnlg-trip for Bit #12	
26	HJC-g-33	7403	293	92 $\frac{1}{2}$	7		4977	2-25	5026	166	Dnlg	
					7	3/4	5015	2-26	5082	154	Dnlg-trip for Bit #13	
					6 $\frac{1}{2}$		5075	2-27	5246	46	Dnlg-trip for Bit #14	
					6		5143	2-28	5292	108	Dnlg	
					6 $\frac{1}{2}$		5236	3-1	5400	65	Dnlg	
					7		5292	3-2	5465	113	Dnlg-trip for NB #15	
					7	3/4	5359	3-3	5578	242	Dnlg	
					7		5422	3-4	5820	161	Dnlg	
					7		5476	3-5	5981	121	Trip for NB #16-Dnlg	
					7		5549	3-6	6102	191	Dnlg	

BIT RECORD		SURVEYS		FJ. PER/DAY		REMARKS					
RUN	TYPE	IN	FJG	HOURS	SLOPE	DEP'JH	DATE	MDNJ	DEP'JH	FJ	CASONG:
					7	5640	3-7		6293	158	Dnlq-Trip for Bit #17
					7 3/4	5703	3-8		6451	125	Trip-dnlq
					7 3/4	5764	3-9		6576	159	Dnlq-trip for Bit #18
					8	5919	3-10		6735	68	Dnlq
					8 1/2	6043	3-11		6803	88	Dnlq
					9	6137	3-12		6891	69	Trip for NB #19-dnlq
					10	6230	3-13		6960	63	Dnlq-Trip for NB #20
					10	6243	3-14		7023	54	Trip-dnlq
					10 1/4	6356	3-15		7077	19	Trip for Bit #21-dnlq
					10	6418	3-16		7096	32	Trip for Bit #22-dnlq
					10	6418	3-17		7128	57	Trip for Bit #23-dnlq
					11	6509	3-18		7185	31	Dnlq-trip for Bit #24
					11	6572	3-19		7216	29	Dnlq-trip for Bit #25
					10 3/4	6634	3-20		7245	26	Dnlq
					12	6727	3-21		7271	48	Dnlq
					12	6790	3-22		7319	55	Dnlq
					12	6851	3-23		7374	37	Dnlq-trip for Bit #26
					12	6975	3-24		7411	44	Dnlq
					11 1/2	7023	3-25		7465	76	Dnlq
					12	7060	3-26		7535	93	Dnlq
					12	7110	3-27		7628	68	Dnlq-trip for logs
					11 3/4	7191	3-28		7696	0	Logging
					11 3/4	7242					
					11	7314					
					12 1/4	7403					
					11 3/4	7468					
					12 1/2	7561					

GEOLOGICAL REPORT

JACK GRYNBERG & ASSOCIATES

Federal #1-4 - Mineral Point

NE  $\frac{1}{4}$  Section 4, T26S, R18E

Grand County, Utah

J. R. Clutter

ROCKY MOUNTAIN GEO-ENGINEERING, COMPANY

Grand Junction, Colorado 81501

## WELL SUMMARY

OPERATOR: Jack Grynberg & Associates  
WELL: Federal #1-4  
AREA: Mineral Point  
LOCATION: 778 JSL 1862 FEL of the NE  $\frac{1}{4}$  of Sec. 4, T26S, R18E, Grand County, Utah  
ELEVATION: 5291 Gn 5302 KB  
WELL DEPTH: 7696 Driller  
CONTRACTOR: Calvert Western Exploration Company - Rig # 35  
RIG TYPE: EMSCO GB-500  
DRILL STEM TESTS: None  
DATES: 2-1-74 to 3-28-74  
CSG: 9 5/8 - 341 - 7" to 4100  
LOGS: Mud Log: Rocky Mountain Geo-Engineering Company  
Schlumberger: Induction - Gamma Ray - Surface to 4100  
Dual Induction - Later Log - 4100 to TD  
Sonic - Gamma Ray - 4100 to TD

## FORMATION JOBS

	<u>Sample</u>	<u>Electric Log</u>
<i>Triassic</i>		
Wingate	Surface	Surface
Chinle	540	540
Shinarump	840	830
Moenkopi	890	900
<i>Permian</i>		
Cutler	1395	1380
White Rim	1490	1485
Rico		2310
<i>Pennsylvanian</i>		
Hermosa Limestone	2700	2690
Paradox	4117	4114
Cane Creek	6750	6755
Lower Hermosa	7280	
Molas	7360	7366
<i>Mississippian</i>		
(Leadville?) Limestone	7425	7427
(Madison?) Dolomite	7635	7630

## SAMPLE DESCRIPTION

- 352 - 380 SS-wh, VJG, Mostly .lae
- 380 - 440 SS-ab w/tr Gy, Sh
- 440 - 500 SS-red, VJG, p/cm, mostly .lae, sm hd & ti
- 500 - 530 SS-ab gradg to S.Ltat-red, slty
- 530 - 540 SS-red, VJG, mostly .lae
- 540 - 575 Chinle 540 - S.Ltat & Sh - Red, slty
- 575 - 590 SS-red, wh, VJG, hd, ti w/Sh-brn, w/S.Ltat-firm, sdy
- 590 - 610 Sh-red, brn, slty
- 610 - 635 SS-wh, VJG, S&P, w/cm, sl Calc, w/Sh-gy, slty, sl Arkosic
- 635 - 645 Sh-red, brn, slty, tr.Sh-gr, slty
- 645 - 730 SS-wh, .lt gy, VJG, w/cm, v. slty, sl S&P, Carb, w/Sh-gr, slty
- 730 - 740 Sh-gy, slty, w/tr LS-gy, Arg
- 740 - 760 SS-ab w/Sh-red, sm gr, S.Lty, Calc
- 760 - 840 Sh-red, sm gr, slty, Calc
- 840 - 860 Shinarump 840 - SS-tan, VJG, sl Arkosic
- 860 - 865 Sh-ab
- 865 - 880 SS-wh, VJG, clean
- 880 - 890 SS-ab w/Sh-brn, blk
- 890 - 950 Moenkopi 890 - Sh-brn, blk, sm sdy
- 950 - 1000 Sh-brn, blk
- 1050 - 1075 Sh, brn, blk, sm slty
- 1075 - 1100 Sh-brn, red, slty, w/tr gy Sh
- 1100 - 1125 Sh-brn, gy, v. slty - gradg to S.Ltat w/sm SS-wh, VJG
- 1125 - 1150 S.Ltat-wh, .lt gy
- 1150 - 1190 S.Ltat-ab w/sm .lav SS-VJG & Sh
- 1190 - 1205 Sh-red, brn, slty, Calc
- 1205 - 1215 LS-wh, VJxln, w/dead oil str in frac w/poor gr flow-fair to stg yel cut
- 1215 - 1265 Sh-brn, blk, sm sdy
- 1265 - 1280 SS-wh, VJG, w/cm, Calc, w/sm SS-ong, VJG, slty
- 1280 - 1300 Sh-brn, slty, w/SS-ong, ab
- 1300 - 1350 Sh-brn, v. slty, w/SS-ong, wh, VJG, slty
- 1350 - 1395 Sh-brn, v. slty
- 1395 - 1405 SS-wh, VJG, hd, ti
- 1405 - 1435 Sh-brn, v. slty, w/SS-wh, VJG, hd, ti w/.lae rd SS-gy
- 1435 - 1445 SS-ab
- 1445 - 1455 Sh-brn, v. slty, gradg to S.Ltat

- 1455-1485 SS-clr, FG, mostly lse  
 1485-1530 White Rim 1485 - SS-wh, clr, FG, p/cm, rd, mostly lse w/tr. Gyp  
 1530-1580 SS-ab  
 1590-1600 SS-clr, FG, p-w/cm, w/sm VC Qtz gra  
 1600-1660 SS-ab w/Sh-red, v. slty  
 1660-1675 Cutler 1660 - Sh-Red, v. S.lt, S.ltst-red, sm gr Sh  
 1675-1690 SS-red, clr, F-CG, mostly lse w/Sh-red, slty  
 1690-1705 Sh-red, v. S.lty, w/S.ltst-red  
 1705-1730 S.ltst-red, slty, rdy, w/SS-red, VFG, Arkosic  
 1730-1740 SS-red, onrg, wh, VF-CG, Arkosic  
 1740-1765 Sh-red  
 1765-1810 Sh-red-brn, slty, rdy, Mica  
 1810-1865 SS-red, onrg, F-MG, Arkosic  
 1865-1895 Sh-red-brn, slty, Mica, w/SS-red, onrg, FG, Arkosic  
 1895-1925 Sh & SS ab -- Samples v. poor  
 1975-2610 No samples - drilled w/no returns  
 2610-2640 SS-red, brn, FG, Arkosic w/sm Sh-red, slty w/Sh-brn  
 2640-2665 SS-lt gy, gr, FG, w/cm, S&P, w/Sh-red, gy, rdy  
 2665-26680 SS-red, gy, FG, Ark, w/Sh ab  
 2680-2700 SS-Red, pk, F-CG, Arkosic w/Sh-red, gy  
 2700-2715 Hemosa 2700 - LS-dk brn, tan, cm, fxl  
 2715-2725 Sh-dk gy, slty  
 2725-2795 LS-gy, fxl, tr for  
 2795-2805 Sh-gy, slty  
 2805-2860 SS-wh, clr, VF-CG, sub rd, sub ang, p/cm, p/sont, Calc, glau  
 2860-2910 LS-gy, tan, fxl, w/SS-ab  
 2910-2955 LS-gy, tan, fxl, suc w/SS-ab  
 2955-3020 LS-gy, dk gy, tan, crn, fxl, sm Arg, drs w/SS-wh, red, Arkosic  
 3020-3040 SS-wh, FG, Calc/cm, tr. Cht  
 3040-3060 LS-gy, wh, tan, VFxl, rdy  
 3060-3090 No Returns  
 3090-3130 LS-gy to dk gy, VFxl, drs w/Sh-dk gy, Calc, slty  
 3130-3150 LS & Sh ab  
 3150-3180 Interbedded LS & Sh  
 3180-3220 LS-gy, dk gy, tan, Arg, drs, sm VFxl w/Sh-gy, dk gy, slty, Calc  
 3220-3225 SS-VF-FG, lse  
 3225-3240 LS & Sh ab  
 3240-3270 No Returns  
 3270-3290 LS-gy, dk gy, cm, Arg, drs to fxl, Sh-dk gy, slty, sl Calc w/SS-wh, pk, onrg, F-CG, Ark

- 3295-3340 Sh-dk gy, slty, Calc, w/LS ab
- 3340-3360 LS-tan, gy, cm, VJ-Fxl, w/tr (ht, tr Fos, w/Sh-dk gy, slty)
- 3360-3390 No Returns
- 3390-3420 LS-lt tan, Gy, fxl, v. Fos, w/Sh ab
- 3420-3430 Sh-dk gy, gy, slty, Calc
- 3430-3460 LS & Sh ab (returns erratic - samples v. poor)
- 3460-3500 LS & Sh ab
- 3500-3540 Pred LS-cm, dns, w/Fos frag, sm Sh-gy, slty w/SS-clr, VJG, Ang, lse
- 3540-3560 Partial Returns - mostly cvgs
- 3560-3605 SS-wh, clr, JG, Calc, fri, sm rd, sl Glau
- 3605-3620 LS-tan, gy, Fxl, dns
- 3620-3635 Sh-dk gy, slty, Calc, w/ht
- 3635-3670 LS-tan, gy, Fxl, dns
- 3670-3745 LS-lt gy, Fxl, dns, slty, w/Sh-gy, dk gy, Calc
- 3745-3760 SS-clr, VJG, lse
- 3760-3790 LS-cm, Fxl, dns, slty
- 3790-3805 SS-clr, VJ-JG, lse, p/cm (Partial Returns)
- 3805-3840 LS-ab w/SS-clr, rd, onrg, VJ-MG, lse to w/cm, Calc, Ankosic in pt. w/Sh Rd, gr, mottled, sm v. slty
- 3840-3870 No Returns
- 3870-3880 VPS - mostly cvgs
- 3880-3910 LS-gy, tan, Fxl, w/Sh-rd, slty
- 3910-3930 LS-tan, gy, Fxl
- 3930-3960 No Returns
- 3960-4000 LS-lt gy, gy, Fxl, w/ht
- 4000-4040 VPS-mostly cvgs-Sh-gy, dk gy, Calc, slty, w/LS ab
- 4040-4065 LS-lt gy, gy, Fxl
- 4065-4090 LS & Sh ab
- 4090-4100 LS-ab (Ran core log & "7" (SG to 4100)
- 4100-4115 LS-ab
- 4115-4195 Paradox Salt 4117 - Anhy, wh, xln, (no Salt present-Salt going into Solution?)
- 4195-4230 LS-lt gy, VJ-Fxl, shly w/Anhy inclus - Sh-b.lk, slty
- 4230-4240 Sh-gy, dk gy, sft to firm, w/Anhy & LS ab
- 4240-4245 SS-clr, wh, JG, Calc
- 4245-4255 Sh-gy, dk gy, slty, w/Anhy
- 4255-4275 SS-clr, wh, onrg, Ank, lse w/Sh & LS ab
- 4275-4285 Sh-dk gy, Calc, w/Anhy
- 4285-4315 Salt-clr, xln
- 4315-4340 Sh-gy, dk gy, Calc, slty, w/Anhy

4340-4380 Sh-gy, dk gy, Calc, slty  
4380-4390 Sh-ab w/LS-gy, Arg, marly  
4390-4400 Salt  
4400-4435 LS-gy, arg, marly  
4435-4555 Salt  
4555-4565 LS-gy, VJxln, slty, arg  
4565-4585 Salt-clr, wh, xln  
4585-4600 LS-ab w/Sh-gy, v. slty  
4600-4610 Salt-wh, clr, xln  
4610-4620 Sh-lt gy, v. slty, w/Anhy & Salt  
4620-4790 Salt-wh, clr, xln  
4790-4800 Sh-lt gy, v. sdy, slty  
4800-4810 Salt w/Anhy  
4810-4825 Anhy-wh, xln, w/S.ltat-dk gy  
4825-4950 Salt-clr, wh, xln, w/Anhy-wh, xln  
4950-4965 Sh-dk gy, Carb, slty  
4965-4985 Sh-blk, Carb  
4985-5015 Salt-clr, xln  
5015-5035 LS-tan, VJxln, w/Sh-dk gy, slty  
5035-5045 Sh-blk, Carb, Calc, w/Anhy, tr. Calcite filled frac, in blk Sh  
5045-5050 Salt  
5050-5090 Sh-dk gy, blk, Carb, Calc, w/sm LS-gy, arg w/Anhy-wh, xln  
5090-5240 Salt-wh, clr, xln, w/sm blk Sh str  
5240-5280 Sh-gy, Carb, w/Anhy-wh, xln  
5280-5305 S.ltat-gy, Calc, w/Sh-blk, Carb, tr. dead oil stain  
5305-5345 Salt  
5345-5370 Sh-blk, Carb, w/Salt  
5370-5405 Salt  
5405-5425 Sh-dk gy, blk, Carb, w/Argy-sft, wh  
5425-5435 Salt w/Anhy  
5435-5485 Sh-dk gy, blk, sl Calc  
5485-5510 S.ltat-lt gy, sdy, Calc, w/LS-wh, VJxln  
5510-5540 Salt  
5540-5590 Salt w/Anhy  
5590-5700 Salt  
5700-5740 Sh-blk, Carb, sl Calc, bleeding Gas  
5740-5790 Salt  
5790-5800 S.ltat-gy, sdy, Calc w/tr. LS-wh, VJxln  
5800-5885 Salt w/blk, Carb, Sh

5885-5905 Sh-dk gy, blk, Carb, w/Anhy  
5905-5915 S.Lt-gy, v. Calc, w/Anhy  
5915-6030 Salt-w  
6030-6050 S.Lt-gy, v. Calc, w/Anhy, tr. Pyrite  
6050-6060 Sh-dk gy, blk, Carb, w/Anhy  
6060-6090 Salt  
6090-6105 Dolo-gy, Arg, tr. Pyrite  
6105-6160 Salt w/blk Sh  
6160-6165 Anhy-wh, sft  
6165-6200 Salt w/blk Sh  
6200-6205 Sh-blk, Carb  
6205-6440 Salt w/Sh-blk, Carb, Calc  
6440-6460 Sh-lt gy, Dolo, slty  
6460-6480 Salt w/Anhy  
6480-6750 Salt w/Sh-blk, Carb  
6750-6770 LS-gy, Arg, tr. red Sh & Cht  
6770-6775 Sh-gy, brn, v. Dolomitic  
6775-6790 Anhy-w/Sh-gy, brn, Dolo  
6790-6800 Anhy & Salt  
6800-6820 Anhy-wh, chalky, sft, tr. red Sh & Cht  
6820-6830 Ab w/Ls-lt gy, v. xln, Arg  
6830-6840 Dolo-lt gy, Fxln, slty w/Anhy + Sh ab  
6840-6880 Salt w/Sh-blk, Carb, Calc  
6880-6890 LS-gy, Arg, w/Anhy-wh, chalky  
6890-6900 Anhy-sft, chalky  
6900-6915 Anhy-ab w/Dolo-gy, Arg, tr. Pyrite, Sh-lt gy, slty, v. Calc  
6915-6990 Salt-cln, xln, w/Sh-blk, Carb, Calc  
6990-7000 Dolo-gy, Arg, drs  
7000-7010 LS-gy, dk brn, Arg, drs w/Anhy-wh xln, tr. Dolo  
7010-7025 Sh-dk gy, blk, Carb, v. Calc, w/Anhy ab  
7025-7100 LS-lt gy, gy, Arg, drs to Vfxln w/Anhy-sft, wh, chalky w/sm Sh-gy, dk gy, Calc  
7100-7110 Anhy-wh, sft, chalky sm/xln, w/LS-ab  
7110-7130 Dol-lt gy, Fxln, slty w/Anhy-ab  
7130-7150 LS-lt gy, Arg, w/Anhy ab  
7150-7170 Salt-cln, xln  
7170-7175 Sh-brn, slty, Calc, w/Asphatic residue-w/LS ab  
7175-7190 Salt-cln, xln  
7190-7215 Sh-blk, Carb, Calc, w/LS + Sh ab  
7215-7230 Dol-gy, Arg, w/Anhy  
7230-7235 Sh & LS ab

- 7235-7240 Dol-brn, Fxln, w/Anhy  
 7240-7250 LS-gy, tan, sm xln, Arg, w/Anhy  
 7250-7280 St-dk gy, v. Calc w/LS-dk gy, Arg, drs,  
 7280-7290 Lower Hermosa-7280- LS-gy, Arg, drs, sft, w/LS-dk brn, VFxln  
 7290-7300 LS-brn, lt gy, Micro-xln  
 7300-7310 LS-gy, Arg, drs, sft  
 7310-7320 LS-brn, VFxln  
 7320-7330 Ab w/LS-marly, wh, sft, tr. dead oil str  
 7330-7340 LS-brn, tan, VF-Fxln, sm fragmental, tr. Fl & Cut-dead oil str  
 7340-7360 LS-crm, tan, brn, VF-Fxln, tr. Foss, tr. Cht-orig, clr  
 7360-7375 Molaa-7360-St-red, sm gy, gr, sft, Bent w/Cht-clr, red  
 7375-7395 St-red, sm gr, gy, w/LS-tan, wh, VFxln, sm chalky  
 7395-7425 St-red, sm gr, gy, mott w/LS-brn, VFxln  
 7425-7440 Mississippian - Leadville-7425 - LS-wh, chalky, drs, w/LS-lt gy, VFxln,  
 tr. Cht  
 7440-7450 LS-ab w/LS-tan, VFxln, w/Cht-brn, gy  
 7450-7470 LS-lt gy, brn, VFxln w/St-wh, chalky w/Cht-brn, tr. Calcite  
 7470-7490 LS-wh, tan, gy, VFxln  
 7490-7500 LS-wh, clr, tan, VFxln  
 7500-7515 Dol-brn, wh, VFxln  
 7515-7540 LS-lt gy, wh, VFxln, sm Chalky  
 7540-7550 Dol-tan, Fxln  
 7550-7570 LS-wh, Vf-Fxln, w/Dol-tan, F-Mxln  
 7570-7590 LS-wh, clr, VF-Mxln, Dol, sm wh, Chalky, drs, w/tr. St-red, gr, tr. Cht  
 7590-7615 LS-wh, clr, tan, Vf-Fxln, Dol-tr St-red  
 7615-7625 Dol-brn, VFxln  
 7625-7635 LS-wh, clr, VF-Fxln, v. dol, w/tr. red Sh  
 7635-7645 Ab w/Dol-brn, VFxln  
 7645-7675 Dol-wh, clr, Fxln, w/LS-wh, sft, Chlaky, tr. St-red, tr. Cht  
 7675-7695 Dol-wh, to clr, Vf-Fxln, v. hd, Sil, glassy, w/Cht-clr, xln  
 7695 JD

BIT RECORD		SURVEYS						FJ. PER/DAY		REMARKS		
RUN	TYPE	SN	FJG	HOURS	SLOPE	DEP/JH	DATE	MDN/J	DEP/JH	FJ	CASING:	
							1-30		0	0	Dnlg rat hole	
1	Reed Y1S7	0	352		$\frac{1}{4}$	144	1-31		0	352	Dnlg 12 $\frac{1}{4}$ Surface hole	
2	Reed Y71A	0	315		$\frac{1}{4}$	203	2-1		352	0	Run surface CSG	
3	Smith J-4	352	1891	101	3/4	1	2-2		352	0	Dnlg out cmt & nipling up w/Bit #2	
4	Smith J-4	2243	1215	59	$\frac{1}{4}$	519	2-3		352	38	Nipling up-Dnlg w/Bit #3	
5	Reed J-62	3458	642	43 $\frac{1}{4}$	$\frac{1}{4}$	855	2-4		390	646	Dnlg w/air-air mist	
6	HJC-OWN-J	4100	98	5	1	916	2-5		1036	331	Dnlg-trip-nerun Bit #3-dnlg	
7	HJC-J-33	4198	178	54 $\frac{1}{2}$	1	1077	2-6		1367	295	Dnlg	
8	Smith J-5	4366	14	9 $\frac{1}{2}$	1	1190	2-7		1662	373	Lost circ 1979-dry drill	
9	Smith V-2	4380	186	19 $\frac{1}{2}$	3/4	1342	2-8		2035	208	Trip for Bit #4-Ream 200' to bottom	
10	HJC-OWN-J	4596	196	22	$\frac{1}{2}$	1552	2-9		2243	502	Dnlg w/no returns-dnlg w/full return	
11	Smith V-2	4792	185	33 $\frac{1}{2}$	3/4	1760	2-10		2745	378	Trip to check Bit #4-dnlg	
12	Smith V-2	4977	105	32 $\frac{1}{2}$	3/4	2282	2-11		3123	335	Dnlg-Trip for NB #5	
13	Rerun #7	5082	210	39 $\frac{1}{4}$	$\frac{1}{4}$	2984	2-12		3453	279	Trip-Dnlg	
14	HJC-OWN-J	5292	184	48 $\frac{1}{2}$	$\frac{1}{4}$	3523	2-13		3737	311	Dnlg	
15	HJC-OWN-J	5476	568	57	3/4	3798	2-14		4048	52	Run Correlation logs	
16	Smith V-2	6044	406	52 $\frac{1}{4}$	$\frac{1}{2}$	4100	2-15		4100	0	Log-Run 7" int	
17	RR Bit #7	6451	260	35 $\frac{1}{2}$	$\frac{1}{4}$	4215	2-16		4100	97	Nipling up-dnlg	
18	HJC-OWN-J	6711	192	53 $\frac{1}{4}$	2	3/4	4366	2-17	4197	162	Dnlg-trip for NB#7-Lost circ	
19	HJC-OWN-J	6903	120	30	6	3/4	4594	2-18	4259	73	@ 4198-Dnlg	
20	HJC-OWN-J	7023	68	28 $\frac{1}{4}$	6	1/4	4601	2-19	4332	34	Dnlg-trip for Bit #8	
21	RR #8	7091	9	8 $\frac{1}{4}$	6	1/4	4655	2-20	4366	59	Dnlg-trip for NB #9	
22	HJC-OWN-J	7100	37	17	3/4	6 $\frac{1}{4}$	4718	2-21	4425	235	Dnlg-trip for NB #10	
23	HJC-OWN-J	7137	77	30	8		4780	2-22	4655	160	Dnlg	
24	HJC-OWN-J	7214	28	13	3/4	7	3/4	4859	2-23	4815	130	Dnlg-trip for NB #11
25	HJC-J-33	7242	161	85 $\frac{1}{4}$	8		4921	2-24	4945	81	Dnlg-trip for Bit #12	
26	HJC-J-33	7403	293	92 $\frac{1}{2}$	7		4977	2-25	5026	166	Dnlg	
					7	3/4	5015	2-26	5082	154	Dnlg-trip for Bit #13	
					6 $\frac{1}{2}$		5075	2-27	5246	46	Dnlg-trip for Bit #14	
					6		5143	2-28	5292	108	Dnlg	
					6 $\frac{1}{2}$		5236	3-1	5400	65	Dnlg	
					7		5292	3-2	5465	113	Dnlg-trip for NB #15	
					7	3/4	5359	3-3	5578	242	Dnlg	
					7		5422	3-4	5820	161	Dnlg	
					7		5476	3-5	5981	121	Trip for NB #16-Dnlg	
					7		5549	3-6	6102	191	Dnlg	

BIT RECORD		SURVEYS		FJ. PER/DAY		REMARKS					
RUN	TYPE	IN	FJG	HOURS	SLOPE	DEP'JH	DAJE	MDNJ	DEP'JH	FJ	CASSING:
					7	5640	3-7		6293	158	Dnlg-Trip for Bit #17
					7 3/4	5703	3-8		6451	125	Trip-dnlg
					7 3/4	5764	3-9		6576	159	Dnlg-trip for Bit #18
					8	5919	3-10		6735	68	Dnlg
					8 1/2	6043	3-11		6803	88	Dnlg
					9	6137	3-12		6891	69	Trip for NB #19-dnlg
					10	6230	3-13		6960	63	Dnlg-Trip for NB #20
					10	6243	3-14		7023	54	Trip-dnlg
					10 1/4	6356	3-15		7077	19	Trip for Bit #21-dnlg
					10	6418	3-16		7096	32	Trip for Bit #22-dnlg
					10	6418	3-17		7128	57	Trip for Bit #23-dnlg
					11	6509	3-18		7185	31	Dnlg-trip for Bit #24
					11	6572	3-19		7216	29	Dnlg-trip for Bit #25
					10 3/4	6634	3-20		7245	26	Dnlg
					12	6727	3-21		7271	48	Dnlg
					12	6790	3-22		7319	55	Dnlg
					12	6851	3-23		7374	37	Dnlg-trip for Bit #26
					12	6975	3-24		7411	44	Dnlg
					11 1/2	7023	3-25		7465	76	Dnlg
					12	7060	3-26		7535	93	Dnlg
					12	7110	3-27		7628	68	Dnlg-trip for logs
					11 3/4	7191	3-28		7696	0	Logging
					11 3/4	7242					
					11	7314					
					12 1/4	7403					
					11 3/4	7468					
					12 1/2	7561					