INTEROFFICE COMMUNICATION

R. G. MYERS

FROM R. G. Myers — Rock Springs, Wyoming (CITY / STATE)

TO B. W. Croft — DATE July 18, 1972

SUBJECT Tentative Plan to Drill
Meeker Unit Well No. 1
Rio Blanco County, Colorado

Attached for your information and files is a tentative plan to drill the above-captioned well. This plan was written in accordance with the Geologic Prognosis dated May 19, 1972.

RGM/gm
Attachment
cc: J. T. Simon
L. A. Hale (6)
J. E. Adney
Geology (2)
D. E. Dallas (4)
A. K. Zuehlsdorff
A. A. Pentila
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State
Paul Zubatch
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From: T. M. Colson

Rock Springs, Wyoming

To: R. G. Myers

July 13, 1972

Tentative Plan to Drill
Meeker Unit Well No. 1
Rio Blanco County, Colorado

This well will be drilled by _____ Drilling Company using a contract rig. One work order has been originated for the drilling and completion of the well, namely 20990-2, Drill Meeker Unit Well No. 1 located in Rio Blanco County, Colorado. This well will be drilled to a total depth of 9300 feet and 7-inch O.D. casing run if oil or gas production is encountered. Eight drill stem tests are anticipated.

1. Drill 17-1/2-inch hole to approximately 330 feet KBM.

2. Run and cement approximately 300 feet of 13-3/8-inch O.D., 54.50-pound, K-55, 8 round thread, ST&C casing. Casing will be cemented with 361 sacks regular bulk cement which represents theoretical requirements plus 100 percent excess for 13-3/8-inch O.D. casing in 17-1/2-inch hole with cement returned to the surface. The cement will be treated with 1700 pounds of Dowell D43A. Plan on leaving a 10 foot cement plug in the bottom of the casing after the displacement is completed. A 13-3/8-inch O.D. Baker guide shoe will be run on the bottom of the casing. The top and bottom of all casing collars will be spot welded in the field at the time the casing is being run and the guide shoe will be spot welded to the shoe joint in the Rock Springs Machine Shop. Install a NSCo. Type "B" 12-inch 3000 psi regular duty casing flange tapped for 13-3/8-inch O.D., 8 round thread casing. The bottom of the surface casing should be landed in such a manner that the top of the 12-inch 3000 psi casing flange will be 1.77 feet below ground level. A cellar four feet deep will be necessary. Circulate 75 barrels of drilling mud prior to beginning cementing operations. Capacity of the 13-3/8-inch O.D. casing is 51 barrels.

3. After a WOC time of 6 hours, wash off collar and remove landing joint. Install a NSCo. 12-inch 3000 psi casing flange threaded for 13-3/8-inch O.D. casing,

Adequate preventers, and finish nippling up. After a WOC time of 12 hours, pressure test casing and all rams in preventers to 1000 psi for 15 minutes. The internal pressure rating for a 13-3/8-inch O.D., 48-pound, H-40 casing is 1730 psi.

4. Install a 12-inch 3000 psi rotating head. Using air, blow water out of the surface casing down to the guide shoe. Drill a 12-1/4-inch hole to approximately 3600 feet or to 50 feet above the Dakota formation. Have a detergent injection system installed and if formation water in sufficient quantity is encountered, begin injecting a detergent-water mixture into the drilling air system. Anticipated formation tops are as follows:

	Approximate Depth (Feet KBM)
Mancos	Surface
Frontier	3200
Mowry	3400
Dakota	3650
Morrison	3775
Entrada	4225
Chinle	~~4585~~ 4885
Moenkopi	4945
Weber	5560
Maroon	6210
Minturn	7060
Belden	9205
Total Depth	9300

5. Run a gamma ray induction log in the air drilled hole.

6. Run 9-5/8-inch O.D. casing as outlined in Item No. 1, General Information, in the air drilled hole. Circulate casing with 524 barrels 9 ppg drilling mud which is the capacity of the 12-1/4-inch hole. Cement casing with 544 sacks regular cement which represents theoretical requirements plus 100 percent excess for 9-5/8-inch O.D. casing in 12-1/4-inch hole with 1000 feet of fillup. A Baker guide shoe and Baker Type "G" float collar will be used as floating

equipment. The guide shoe, float collar, and top and bottom of collars on the bottom 5 joints will be spot welded while the casing is being run.

7. Immediately after cementing operations are completed, land the 9-5/8-inch O.D. casing with full weight of casing on slips and record indicator weight. Install NSCo. 12-inch 3000 psi by 10-inch 3000 psi heavy duty casing spool. Pressure test slips and seal assembly to 1000 psi for 5 minutes. The minimum collapse pressure for the 9-5/8-inch O.D., 36-pound, K-55 casing is 2220 psi. Install 10-inch 3000 psi hydraulically operated double gate blowout preventer with blind rams in bottom and 4-1/2-inch rams in top and a 10-inch 3000 psi rotating head.
8. After a WOC time of 30 hours, pressure test casing and preventer to 1500 psi for 15 minutes using mud and rig pump. The internal pressure rating for new 9-5/8-inch O.D., 36-pound, K-55 casing is 3520 psi.
9. Go into hole with 8-3/4-inch bit and sufficient drill collars. Drill out float collar and guide shoe. Drill to a total depth of 9300 feet or such depth as recommended by the Geological Department. A mud de-sander will be used from under the 9-5/8-inch O.D. casing to total depth. A fully manned mud logging unit will be used from bottom of the 9-5/8-inch O.D. casing to total depth. Catch 10-foot samples from 3600 feet to total depth. Eight drill stem tests are anticipated starting at 3650 feet. The mud system will consist of properties adequate to allow the running of drill stem tests. Note: It may be desirable to drill out from under the 9-5/8-inch O.D. casing using air.
10. Run a dual induction-laterolog from total depth to the bottom of the surface pipe (Linear 2-inch, logarithmic 5-inch with RXO/Rt on 5-inch) and borehole

compensated sonic gamma ray caliper log with "F" log overlay from total depth to surface pipe, a borehole compensated gamma ray density log and sidewall neutron log over zones of interest.

11. Assume commercial quantities of gas and/or oil are present as indicated by open hole drill stem tests or log analysis. Go into hole with an 8-3/4-inch bit and drill pipe to total depth to condition mud prior to running production casing. Pull bit laying down drill pipe and drill collars.

12. Run 7-inch O.D. casing as outlined in Item No. I, General Information, through the deepest producing zone as indicated by open hole drill stem tests or log analysis. This casing string is designed using 10 ppg drilling mud. A Baker 7-inch O.D., 8 round thread, Type G circulating differential fillup collar and a Baker guide shoe will be run as floating equipment. Cement casing with 50-50 Pozmix "A" cement. Bring cement top behind the 7-inch O.D. casing above the uppermost producing zone as indicated by drill stem test and log analysis. Circulate 400 barrels of drilling mud prior to beginning cementing operations. Capacity of the 7-inch O.D. casing is approximately 356 barrels. Cement requirements will be based on actual hole size as determined by the caliper portion of the formation density log. Rotate casing while circulating, mixing and displacing cement. Displace cement with water.

13. Immediately after cementing operations are completed, land the 7-inch O.D. casing with full weight of casing on slips in the 10-inch 3000 psi casing flange and record indicator weight. Install NSCo. Type B 10-inch 3000 psi by 6-inch 5000 psi tubing spool. Pressure test primary and secondary seals to 3000 psi for 5 minutes. Minimum collapse pressure for 7-inch O.D., 23-pound, N-80, 8 round thread, LT&C casing is 4070 psi. Install a steel plate on the 6-inch 5000 psi tubing spool flange.

14. Release drilling rig and move off location.
15. Move in and rig up a completion rig.
16. Install a 6-inch 5000 psi hydraulically operated double gate preventer with blind rams on bottom and 2-3/8-inch tubing rams on top.
17. After a WOC time of at least 50 hours, rig up Dresser Atlas and run bond log and perforating formation control log from plugged back depth to top of cement behind the 7-inch O.D. casing.
18. After a WOC time of at least 56 hours, pick up and run a 6-1/4-inch bit on 2-3/8-inch O.D., 4.6-pound, J-55 seal lock thread tubing to check plugged back depth.
19. Using Halliburton pump truck and water, pressure test casing and tubing rams to 4000 psi for 15 minutes. The minimum internal yield for 7-inch O.D., 23-pound, N-80 casing is 6340 psi and the wellhead has a working pressure of 5000 psi with a test pressure of 10,000 psi. Pull tubing and pressure test casing and blind rams to 4000 psi for 15 minutes. Pull bit, standing tubing in derrick.
20. A tentative plan to complete the well will be issued after results of the above items have been evaluated.

GENERAL INFORMATION

I. The following tubular goods have been assigned to the well.

Description	Approximate Gross Measurement (Feet)	Availability
	Surface Casing	
13-3/8-inch O.D., 54.5-pound, K-55, 8 round thread, ST&C casing	330	To be purchased
	Intermediate Casing	
9-5/8-inch O.D., 36-pound, K-55, 8 round thread, ST&C casing	3800	To be purchased
	Production Casing	
7-inch O.D., 23-pound, N-80, 8 round thread, LT&C casing	6,700	To be purchased
7-inch, O.D., 26-pound, N-80, 8 round thread, LT&C casing	2,800	To be purchased
Total	9,500	
	Production Tubing	
2-3/8-inch O.D., 4.6-pound, N-80, seal lock tubing	9,500	To be purchased

II. Drill pipe rams will be operated once each 24 hours and the blind rams will be operated when drill pipe is out of hole.

III. All rams type preventers will have hand wheels installed and operative at the time the preventers are installed.