5. LEASE

UNITED STATES

DEPARTMENT OF THE INTERIOR	Contract 154			
GEOLOGICAL SURVEY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or plug back to a different eservoir. Use Form 9–331–C for such proposals.)	7. UNIT AGREEMENT NAME			
	8. FARM OR LEASE NAME Jicarilla Apache			
1. oil gas X other	9. WELL NO. 13E			
2. NAME OF OPERATOR Marathon Oil Company	10. FIELD OR WILDCAT NAME			
3. ADDRESS OF OPERATOR	Basin Dakota			
P.O. Box 2659, Casper, Wyoming 82602	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA			
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)	Sec. 33, T26N, R5W			
AT SURFACE: 1,850' FNL, 930' FWL, Unit E	12. COUNTY OR PARISH 13. STATE			
AT TOP PROD. INTERVAL: SAME	Rio Arriba New Mexico			
AT TOTAL DEPTH: SAME	14. API NO.			
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	15. ELEVATIONS (SHOW DF, KDB, AND WD) 6598' 6L			
TEST WATER SHUT-OFF	(NOTE: Report results of multiple completion or zone change on Form 9–330.)			
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state including estimated date of starting any proposed work. If well is demeasured and true vertical depths for all markers and zones pertined. See attached sheet	irectionally drilled, give businesce locations and			
Verbal approval from Mr. James F. Sims to	Doug Richardson 11/10/80			
Subsurface Safety Valve: Manu. and Type	Set @ Ft			
18. I hereby certify that the foregoing is true and correct				
/ Man	rator date <u>November 10, 1980</u>			
(This space for Federal or State o	file use)			
CONDITIONS OF APPROVAL, IF ANY DEPARTS FOYDISTRICT ENGINEERS 3	R NMOCC			

The following Casing & Cementing Program Revisions are being made to test the Morrison Formation and economically complete this well.

INTERMEDIATE CASING PROGRAM

The Intermediate Casing Program has been revised, the revisions include the addition of 2220' of 7", 29.0#, N-80, LTC Casing. This will case the hole with 7" pipe to T.D. at 7470' KB. With this addition this string will now become the production casing. Also, 1000' of 7", 23#, K-55 casing will be run from surface to 1000' KB to accomodate the increased tensile load. The revised casing program will be as follows:

DEPTH	SIZE	WT	GRADE	COUPLING	SAFETY FACTORS		
					SF _t	SF _C	SF _b
Surface to 1000' KB 1000' to 3200' KB 3200' to 5250' KB 5250' to 7470' KB	7" 7" 7" 7"	23# 20# 23# 29#	K-55 K-55 K-55 N-80	STC STC STC LTC	1.73 1.63 2.77 9.27	4.79 1.13 1.15 1.92	1.61 1.60 2.82 9.50

CEMENTING PROGRAM

The Cementing Program will now be as follows:

A Stage Collar will be set at ±4100' KB.

Stage #1: 250 sacks of "Light" cement with 6% D-20, 0.8% D-60 and $\frac{1}{4}$ #/ sack celloflake followed by 100 sacks of class "B" containing 0.8% D-60 and $\frac{1}{4}$ #/ sack celloflake. After opening the stage collar at $\frac{1}{4}$ 100' KB circulate for 5 hrs. and proceed as follows:

Stage #2: 200 sacks of "Light" cement with 0.8% D-19 and $\frac{1}{4}$ #/sack celloflake (Estimate top of cement at 2500').

All cement volume will be calculated from cauper logs plus 20% excess. Additive mentioned above are registered to B.J. Hughes. Equivalent additives should be used in the event B.J. Hughes is not selected for the job.