EARLOUGHER ENGINEERING

CORE SUMMARY

Company Aurora Gasoline Company Lease T. O. May Well No. 5

Location 1310 feet from North and East Lines

Section 34 Twp. 22-S Rge. 37-E County Lea State New Mexico

Formation Cored Penrose (Queen) Type Core Diamond, 4-inch

Date Cored 8-31-51 Date Shot _____ Coring Fluid Regular Mud

Depths:

Elevation, R.B., Datum	3325.0	Feet
Ground Elevation	3316.0	"
Started coring, shale	3545.0	"
Top of oil sand section	3577.8	"
Bottom of oil sand section	3679.8	"
Net feet of oil sand	33.8	"
Bottom of core, shaly sandy dolomite	3688.0	"
Total cored	143.0	"
Feet analyzed	45.0	"
Per cent core recovery	100.	per cent

Shot Record: Set Packer _____ Feet

Depth, Feet From	To	Feet	Shell Diameter	Quarts Per Foot	Quarts Total

5-1/2 inch casing set and cemented at 3578.0 feet.

Completion Data:

Hrs. well stood after coring _____; Feet Fluid in Hole _____ (Oil _____ Water _____)

Clean-out time, hrs. _____; Initial production, bbls. day _____ (Oil _____ Water _____)

Remarks: The Penrose (Queen) sand section was diamond cored from 3545.0 to 3688.0 feet and core sampled by Earlougher Engineering. Full core recovery was obtained.

Coring was commenced in shale and completed in sandy dolomite. The cored section is predominantly dense sandy dolomite with 33.8 net feet of oil sand occuring in 4 separate zones as follows:

(Continued following page)

EARLOUGHER ENGINEERING
PETROLEUM CONSULTANTS - CORE ANALYSES
319 EAST FOURTH STREET
TULSA 3, OKLAHOMA

September 12, 1951

Aurora Gasoline Company
Wright Building
Tulsa, Oklahoma

Attention - Mr. Maurice Shiller

Re - Core Analysis
T. O. May Well No. 5
Sec. 34, T.22-S., R.37-E.
Lea County, New Mexico

Gentlemen:

Attached are results of analysis, together with profile and summary, covering core received from your above well.

The Penrose (Queen) sand was diamond cored and results of the analysis indicate 33.8 net feet of oil sand with low porosity and low permeability. The oil sand occurs in 4 separate sections throughout an interval of 102 feet from 3577.8 to 3679.8 feet.

Based on the data from this one core alone it may be calculated that a primary oil recovery by gas expansion of 4100 barrels per acre should be obtained from the area of which this core is representative. An effective water flood following primary depletion may yield an additional oil recovery of 2300 barrels per acre. The average recovery to date from this property has been only 1380 barrels per acre indicating a possible 5020 barrels per acre of primary and secondary oil yet to be produced.

If the low primary recovery to date is due to poor drainage caused by the low permeability, it is possible that closer spacing should yield substantially more oil. Therefore, it is recommended that the present core well be completed possibly by hydrafracing. Bottom hole pressure test and production test data might then indicate whether or not there is sufficient oil yet to be recovered under primary methods to be economically attractive. If this should prove to be possible then water injection would be adviseable.

Yours very truly

EARLOUGHER ENGINEERING

R. C. Earlougher

R. C. Earlougher, Engineer

JMR f
Encl - 5
cc - Mr. R. DeChiccis (2)

(a) 3577.8 to 3595.0 feet - 16.5 net feet
(b) 3630.8 to 3643.9 feet - 10.3 net feet
(c) 3659.7 to 3663.9 feet - 4.1 net feet
(d) 3676.9 to 3679.8 feet - 2.9 net feet

Results of analysis are summarized in 6 sections based on differences in permeability and porosity. Sections 1, 2 and 3 contain the 16.5 net feet of oil sand in the top zone. Sections 4, 5 and 6 represent the oil sand in the bottom 3 zones.

PERMEABILITY The entire sand section has very low permeability with the weighted average being 4.3 millidarcys. Individual values range from impermeable to 26 millidarcys. Sections 2 and 5 have an average permeability of 7.0 and 17 millidarcys, respectively compared with the average of 0.0, 0.5, 1.7 and 1.0 millidarcys for sections 1, 3, 4 and 6, respectively. Permeability capacity is 144 foot-millidarcys.

POROSITY Weighted average porosity is 13.3 per cent and individual values range from 7.6 to 19.0 per cent. Average porosity of sections 1 through 6 is 12.5, 15.1, 10.4, 13.2, 17.8 and 11.1 per cent, respectively.

PER CENT SATURATION The average oil saturation is 18 per cent and values are fairly uniform throughout the section. Average core water saturation is 53 per cent and values are quite variable probably due to the variance in permeability and porosity. Laboratory oil flooding tests indicated that the average connate water saturation should be approximately 40 per cent.

OIL CONTENT Average oil content is 182 barrels per acre-foot and values range from 88 to 260 barrels per acre-foot.

LABORATORY WATER FLOODING TESTS Laboratory water flooding tests showed an average residual oil saturation of 18 per cent and oil recoveries varied from zero to 60 barrels per acre-foot. Permeability to

fresh water was erratic and generally followed the permeability profile. These flooding tests indicate that very nearly all recoverable oil was lost from the core during coring due to gas expansion and flushing with drilling mud. No plugging was indicated due to the use of fresh water.

LABORATORY OIL FLOODING TESTS Eight representative samples were flooded with crude oil in the laboratory at a pressure of 70 psi. They indicated an average residual water saturation of 40 per cent which may very nearly represent the average connate water saturation. This is a relatively low connate water saturation for a sand with such low permeability.

CONCLUSIONS

1. There are 33.8 net feet of oil sand located in 4 sections between depths 3577.8 and 3679.8 feet.

2. Permeability and porosity are very low averaging 4.3 millidarcys and 13.3 per cent, respectively. The average core oil saturation is 18 per cent and average core water saturation 53 per cent.

3. Estimated primary oil recovery to zero psi reservoir pressure is 122 barrels per acre-foot or 4100 barrels per acre from the area of which this core is representative.

4. An effective water flood following primary depletion may yield an additional oil recovery of 67 barrels per acre-foot or 2300 barrels per acre assuming the entire 33.8 net feet of sand could be effectively water flooded.

5. The above recovery estimates assume a formation volume factor of 1.40 based on the reported original gas in solution of 751 cubic feet per barrel

and saturation pressure of 1457 psi. Any oil already produced from this property should be deducted from the above estimated oil recoveries to arrive at possible present reserves.

Respectfully submitted

EARLOUGHER ENGINEERING

J. M. Robinson, Engineer

JMR f

EARLOUGHER ENGINEERING

SUMMARY OF CORE ANALYSES DATA

COMPANY Aurora Gasoline Company LEASE T. O. May WELL NO. 5

Sec.	Formation	Depth, Ft.		Net Ft. of Sand	Avg. Por.	Avg. Core Saturation		Core Oil Content		Permeability		Flood Pot Residuals				Oil Recovery Bbl./Acre	
												Saturation		Oil Content			
		From	To			Oil	Water	Avg. B/A. Ft.	Total B/Ac.	Avg. Md.	Capacity Ft. x Md.	Oil	Water	B/A. Ft.	B/Ac.	Diff.	Flood Pot
1	Penrose(Queen)	3577.8	3579.5	1.7	12.5	16.	57.	153.	260.	0.0	0.0	17.	83.	165.	280.	-0-	100.
2	Penrose(Queen)	3579.5	3586.5	7.0	15.1	17.	53.	194.	1360.	7.0	49.	16.	84.	188.	1320.	40.	220.
3	Penrose(Queen)	3587.2	3595.0	7.8	10.4	18.	57.	146.	1140.	0.5	3.9	18.	81.	146.	1140.	-0-	100.
4	Penrose(Queen)	3630.8	3643.9	10.3	13.2	21.	48.	211.	2170.	1.7	17.	20.	76.	205.	2110.	60.	430.
5	Penrose(Queen)	3659.7	3663.9	4.1	17.8	14.	49.	195.	800.	17.	71.	14.	73.	195.	800.	-0-	60.
6	Penrose(Queen)	3676.9	3679.8	2.9	11.1	16.	60.	141.	410.	1.0	2.8	20.	80.	172.	500.	-0-	50.
1-6	Penrose(Queen)	3577.8	3679.8	33.8	13.3	18.	53.	182.	6140.	4.3	144.	18.	79.	182.	6150.	-0-	960.

EARLOUGHER ENGINEERING

RESULTS OF SATURATION TESTS

COMPANY Aurora Gasoline Company WELL T. O. May No. 5

Sat. No.	Depth Feet	Porosity Per Cent	Per Cent Saturation			Avg. Oil Content Bbl./A. Ft.	Feet of Sand		Total Oil Content Bbl./Acre
			Oil	Water	Total		Ft.	Cum.	
1	3548.0	3.4	59.	41.	100.	160.	3.1*		
1A	3566.8	13.7	16.	45.	61.	170.	1.2*		
2	3567.6	7.0	16.	84.	100.	89.	1.0*		
3	3574.0	3.0	44.	56.	100.	100.	1.3*		
4	3575.6	2.5	41.	59.	100.	80.	2.7*		
5	3578.2	13.1	16.	61.	77.	160.	0.9	0.9	130.
6	3579.2	13.4	16.	52.	68.	160.	0.8	1.7	130.
7	3580.0	15.2	11.	55.	66.	130.	1.1	2.8	140.
8	3580.9	13.3	18.	60.	78.	180.	1.3	4.1	230.
9	3582.3	15.8	17.	45.	62.	210.	0.9	5.0	190.
10	3583.3	14.3	18.	57.	75.	200.	1.2	6.2	240.
11	3584.4	15.1	18.	47.	65.	220.	1.2	7.4	260.
12	3585.6	16.9	18.	52.	70.	230.	1.3	8.7	300.
13	3587.7	10.7	20.	66.	86.	170.	1.0	9.7	170.
14	3588.7	7.8	15.	85.	100.	88.	1.3	11.0	110.
15	3590.0	12.5	22.	54.	76.	210.	0.9	11.9	190.
16	3591.1	13.9	17.	46.	63.	190.	0.9	12.8	170.
17	3592.0	14.0	14.	43.	54.	150.	0.9	13.7	140.
18	3593.1	7.6	21.	58.	79.	120.	1.3	15.0	160.
19	3594.1	9.3	18.	50.	68.	130.	1.5	16.5	200.
F20	3595.1	7.4	6.1	--	--	35.	0.5*		
24	3616.7	6.5	22.	71.	93.	110.	0.6*		
25	36.8.0	4.7	24.	35.	59.	88.	1.0*		
26	3621.5	11.6	12.	43.	55.	100.	0.6*		
27	3628.6	4.2	18.	72.	90.	59.	3.2*		
28	3631.6	15.1	17.	38.	55.	200.	1.5	18.0	300.
29	3633.0	16.9	18.	48.	66.	230.	1.2	19.2	280.
30	3634.2	10.3	19.	53.	72.	150.	1.4	20.6	210.
31	3635.3	14.0	24.	40.	64.	260.	1.0	21.6	260.
32	3636.3	11.3	24.	51.	75.	210.	1.1	22.7	230.
33	3638.2	10.5	28.	58.	86.	230.	1.0	23.7	230.
34	3641.5	11.7	23.	41.	64.	210.	2.3	26.0	480.
35	3643.6	18.0	16.	55.	81.	220.	0.8	26.8	180.
36	3653.3	2.4	70.	30.	100.	130.	1.8*		
37	3654.0	8.1	23.	52.	75.	140.	0.7*		
38	3656.8	5.4	18.	64.	82.	75.	1.2*		
39	3660.4	18.8	13.	37.	50.	180.	1.5	28.3	270.
40	3661.5	19.0	16.	63.	79.	230.	0.7	29.0	160.
41	3662.4	18.6	14.	48.	62.	200.	1.4	30.4	280.
42	3663.5	11.1	21.	48.	69.	180.	0.5	30.9	90.
43	3677.1	13.5	7.4	41.	48.	78.	0.6	31.5	47.
44	3677.9	10.5	16.	60.	76.	130.	1.0	32.5	130.
45	3679.4	10.4	22.	78.	78.	180.	1.3	33.8	230.

*Not included in cumulative feet of sand.

EARLOUGHER ENGINEERING

RESULTS OF LABORATORY FLOODING TESTS

COMPANY Aurora Gasoline Company LEASE T. O. May WELL NO. 5

Sample No.	Depth	Porosity	Perm. Approx.	Before Flooding 1/ Oil Sat.	Water Sat.	Oil Content Bbl./A. Ft.	Max. Press. Psi.	Water Through C.C.	Time Min.	Flood Pot Residual Oil Sat.	Water Sat.	Oil Content Bbl./A. Ft.	Flood Pot Oil Recovery Bbl./A. Ft.	
F- 1	3548.0	3.4	Imp.	49.	--	130.	40.	30.	495.	49.	51.	130.	-0-	
F- 2	3567.6	7.0	Imp.	18.	--	100.	40.	+	495.	18.	81.	150.	-0-	
F- 4	3575.6	2.5	Imp.	37.	--	71.	40.	-0-	495.	37.	63.	71.	-0-	
F- 6	3579.2	13.4	Imp.	23.	--	240.	40.	144.	375.	17.	87.	180.	60.	
F- 8	3580.9	13.3	4.0	16.	--	170.	40.	3,177.	615.	14.	86.	150.	24.	
F-10	3583.3	14.3	4.0	18.	--	200.	40.	2,294.	615.	16.	84.	170.	33.	
F-12	3585.6	16.9	19.	20.	--	260.	40.	2,792.	555.	17.	86.	220.	37.	
F-14	3588.7	7.8	Imp.	13.	--	79.	40.	-0-	675.	13.	87.	79.	-0-	
F-16	3591.1	13.9	1.0	19.	--	200.	40.	+	615.	15.	74.	160.	38.	
F-18	3593.1	7.6	0.2	26.	--	180.	40.	-0-	675.	26.	82.	180.	-0-	
F-20	3595.1	7.4	Imp.	6.1	--	35.	40.	-0-	495.	61.	94.	35.	-0-	
F-24	3616.7	6.5	Imp.	26.	--	130.	40.	-0-	495.	26.	74.	130.	-0-	
F-26	3621.5	11.6	Imp.	5.4	--	49.	40.	-0-	495.	5.4	20.	49.	-0-	
F-28	3631.6	15.1	2.0	20.	--	240.	40.	+	435.	17.	64.	200.	44.	
F-30	3634.2	10.3	1.0	24.	--	190.	40.	-0-	495.	21.	78.	170.	15.	
F-32	3636.3	11.3	0.1	31.	--	270.	40.	-0-	375.	24.	26.	210.	58.	
F-34	3641.5	11.7	0.1	21.	--	190.	40.	208.	375.	16.	24.	140.	49.	
F-38	3656.8	5.4	Imp.	15.	--	62.	40.	-0-	495.	15.	85.	62.	-0-	
F-39	3660.4	18.8	26.	14.	--	210.	40.	866.	375.	13.	82.	190.	19.	
F-40	3661.5	19.0	25.	12.	--	170.	40.	5,410.	600.	9.6	55.	140.	31.	
F-42	3663.5	11.1	1.0	20.	--	170.	40.	232.	540.	18.	82.	160.	13.	
F-45	3679.4	10.4	1.0	22.	--	180.	40.	1,851.	315.	20.	80.	160.	17.	

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1/ Unless otherwise noted, oil content and saturation before flooding equals flood pot oil recovery plus flood pot residual.

Earlougher Engineering

RESULTS OF PERMEABILITY TESTS

COMPANY Aurora Gasoline Company WELL T. O. May No. 5

Sample No.	Depth Feet	Permeability Millidarcys	Feet of Sand		Capacity Ft. X Md.	Sample No.	Depth Feet	Permeability Millidarcys	Feet of Sand		Capacity Ft. X Md.
			Ft.	Cum. Ft.					Ft.	Cum. Ft.	
1	3546.7	Imp.	1.1*			48	3517.7	Imp.	0.6*		
2	3547.7	Imp.	0.5*			49	3518.3	Imp.	0.4*		
3	3548.3	Imp.	1.5*			50	3521.2	0.3	0.6*		
4	3566.5	Imp.	0.5*			51	3678.3	Imp.	1.2*		
5	3567.1	6.1	0.7*			52	3628.9	Imp.	2.0*		
6	3567.4	Imp.	0.4*			53	3631.1	0.3	0.4	16.9	0.1
7	3567.8	Imp.	0.5*			54	3631.8	1.7	0.8	17.7	1.4
8	3574.7	Imp.	0.6*			55	3632.2	12.	0.3	18.0	3.6
9	3574.4	Imp.	0.7*			56	3632.5	2.6	0.3	18.3	0.8
10	3575.3	Imp.	0.7*			57	3632.7	2.1	0.5	18.8	1.1
11	3575.8	Imp.	2.0*			58	3633.3	1.7	0.4	19.2	0.7
12	3577.9	Imp.	0.4	0.4	-0-	59	3633.7	4.5	0.3	19.5	1.4
13	3578.5	Imp.	0.5	0.9	-0-	60	3634.0	0.6	0.5	20.0	0.3
14	3578.9	Imp.	0.4	1.3	-0-	61	3634.5	0.2	0.6	20.6	0.1
15	3579.4	Imp.	0.4	1.7	-0-	62	3634.9	1.2	0.4	21.0	0.5
16	3579.8	3.1	0.4	2.1	1.2	63	3635.6	0.6	0.6	21.6	0.4
17	3588.1	3.5	0.2	2.3	0.7	64	3636.0	0.2	0.4	22.0	0.1
18	3580.4	25.	0.5	2.8	13.	65	3636.5	0.2	0.4	22.4	0.1
19	3581.2	4.9	0.9	3.7	4.4	66	3636.9	0.1	0.3	22.7	0.1
20	3581.7	2.6	0.4	4.1	1.0	67	3637.4	Imp.	0.8*		
21	3582.1	3.5	0.4	4.5	1.4	68	3638.0	0.1	0.5	23.2	0.1
22	3582.6	4.2	0.5	5.0	2.1	69	3638.6	0.1	0.5	23.7	0.1
23	3583.1	3.6	0.7	5.7	2.5	70	3640.3	1.1	0.4	24.1	0.4
24	3583.7	2.1	0.5	6.2	1.1	71	3640.8	0.2	0.4	24.5	0.1
25	3584.2	1.0	0.5	6.7	0.5	72	3641.2	Imp.	0.2*		
26	3584.7	1.8	0.4	7.1	0.7	73	3641.8	0.5	0.8	25.3	0.4
27	3585.1	0.8	0.3	7.4	0.2	74	3642.1	0.1	0.7	26.0	0.1
28	3585.4	21.	0.6	8.0	13.	75	3643.3	6.2	0.8	26.8	5.0
29	3585.9	8.9	0.3	8.2	2.7	76	3644.0	Imp.	1.1*		
30	3586.4	11.	0.4	8.7	4.4	A	3653.3	Imp.	1.8*		
31	3587.4	0.1	0.6	9.3	0.1	77	3653.6	Imp.	0.3*		
32	3588.0	Imp.	0.4	9.7	-0-	B	3654.0	0.1	0.4*		
33	3588.4	Imp.	0.6	10.3	-0-	78	3654.3	Imp.	0.4*		
34	3588.9	Imp.	0.7	11.0	-0-	C	3656.8	Imp.	0.5*		
35	3589.6	Imp.	0.5	11.5	-0-	79	3657.1	Imp.	0.7*		
36	3590.4	Imp.	0.4	11.9	-0-	D	3660.4	26.	0.8	27.6	21.
37	3590.8	1.8	0.9	12.8	1.6	80	3660.7	8.7	0.4	28.0	3.5
38	3591.4	4.7	0.3	13.1	1.4	81	3661.1	0.2	0.3	28.3	0.1
39	3591.7	0.9	0.6	13.7	0.5	E	3661.5	24.	0.7	29.0	17.
40	3592.2	0.1	0.3	14.0	0.1	F	3662.4	13.	0.6	29.6	7.8
41	3592.8	Imp.	0.5	14.5	-0-	82	3662.7	19.	0.5	30.1	9.5
42	3593.4	0.3	0.5	15.0	0.2	83	3663.2	8.5	0.3	30.4	2.6
43	3593.7	Imp.	0.5	15.5	-0-	G	3663.4	Imp.	0.1*		
44	3594.4	Imp.	0.6	16.1	-0-	84	3663.8	18.	0.5	30.9	9.0
45	3594.9	Imp.	0.4	16.5	-0-	85	3677.4	1.7	0.6	31.5	1.0
46	3595.4	Imp.	0.5*			86	3678.2	0.8	1.0	32.5	0.8
47	3516.4	Imp.	0.6*			87	3678.7	0.2	0.5	33.0	0.1

(Continued following page)

EARLOUGHER ENGINEERING

RESULTS OF PERMEABILITY TESTS

COMPANY Aurora Gasoline Company WELL T. O. May No. 5

Sample No.	Depth Feet	Permeability Millidarcys	Feet of Sand		Capacity Ft. X Md.	Sample No.	Depth Feet	Permeability Millidarcys	Feet of Sand		Capacity Ft. X Md.
			Ft.	Cum. Ft.					Ft.	Cum. Ft.	
87	3678.7	0.2	0.5	33.0	0.1	89	3679.4	0.3	0.5	33.8	0.2
88	3679.2	2.2	0.3	33.3	0.7	90	3682.1	0.2	1.5*		

*Not included in cumulative feet of sand.

AURORA GASOLINE COMPANY

T. O. MAY WELL NO. 5

SPECIAL OIL FLOODING TESTS

Sample Number	Depth, Feet	Por. %	Perm. Approx.	Max Press Psi	Volume of Oil Thru cc	Flooding Time Mins	After Oil Flooding	
							Oil Sat	Water Sat
F- 7	3580.0	15.2	3.3	70.	63.	555.	55.	41.
F-11	3584.4	15.1	1.4	70.	325.	555.	52.	40.
F-13	3587.7	10.7	0.1	70.	20.	555.	47.	57.
F-29	3633.0	16.9	1.9	70.	870.	555.	70.	30.
F-31	3635.3	14.0	0.9	70.	25.	555.	50.	42.
F-35	3643.6	18.0	6.2	70.	731.	555.	67.	30.
F-41	3662.4	18.6	16.	70.	526.	555.	62.	30.
F-44	3677.9	10.5	1.3	70.	86.	555.	51.	49.
Average		14.9	3.9				57.	40.

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AURORA GASOLINE COMPANY

T. O. MAY NO. 5

CHRISTENSEN DIAMOND CORE HEAD - 6-1/8" O.D. CORE - 3-1/2" O. D.
CORING WEIGHT: 10,000 - 11,000# - PUMP PRESSURE 600 - 700 PSI
CORING MEDIUM - SALT MUD - CORE RECOVERY 100 PER CENT

SUMMARY

Core No.	Depth	Time Hrs.	Feet Cored
1	3545 to 3580	7.0	35.
2	3580 to 3611	4.7	31.
3	3611 to 3646	5.9	35.
4	3646 to 3673	5.1	27.
5	3673 to 3688	2.6	15.
Total		25.3	143.

R. B. Elevation 3325 feet - Ground Level to Rotary Bushing 9.3 feet

CORING TIME

Depth	Time Mins./Ft.	Depth	Time Mins./Ft.	Depth	Time Mins./Ft.
3545	--	3576	11	3607	13
46	18	77	11	08	9
47	19	78	9	09	10
48	8	79	9	3610	9
49	11	3580	14	11	10
50	13	81	8	12	8
51	10	82	7	13	12
52	10	83	6	14	14
53	13	84	6	15	11
54	12	85	8	16	12
55	9	86	6	17	9
56	10	87	9	18	11
57	14	88	8	19	8
58	11	89	9	3620	11
59	13	3590	10	21	14
3560	12	91	8	22	8
61	13	92	8	23	10
62	13	93	8	24	10
63	14	94	9	25	10
64	13	95	9	26	10
65	10	96	9	27	11
66	10	97	10	28	11
67	11	98	19	29	9
68	9	99	16	3630	10
69	10	3600	15	31	10
3570	15	01	9	32	8
71	13	02	12	33	8
72	11	03	9	34	8
73	10	04	10	35	7
74	13	05	8	36	7
75	11	06	12		

Depth	Time Mins./Ft.	Depth	Time Mins./Ft.
3637	8	3663	12
38	11	64	10
39	8	65	10
3640	9	66	10
41	10	67	9
42	9	68	11
43	9	69	14
44	10	3670	12
45	9	71	11
46	9	72	12
47	13	73	13
48	12	74	6
49	6	75	11
3650	10	76	12
51	10	77	14
52	10	78	9
53	10	79	7
54	10	3680	6
55	7	81	8
56	9	82	7
57	9	83	7
58	9	84	16
59	9	85	13
3660	11	86	12
61	11	87	15
62	11	88	15 T.D.

CWM 1
Encl 3
cc: R. C. Earlougher
J. M. Robinson