

THE ATLANTIC REFINING COMPANY
EXHIBIT NO. 11
TABULATION OF INFORMATION
HORSESHOE-GALLUP UNIT

General Information:

Date of Discovery:	1956
Number of Wells in Unit Area:	268
Spacing:	40 Acre

Reservoir and Fluid Information:

Formation	Lower Gallup	
Composition	Sand	
Structure	Stratigraphic Trap	
Depth	800' - 1600'	
Producing Mechanism	Solution Gas	
Original BHP	215 @ +4175	
Solution GOR @ P _o	144 SCF/STB	
Original F.V.F.	1.09	
Bottom Hole Temperature	87° F	
Oil Gravity	42° API	
	<u>Upper</u>	<u>Lower</u>
Porosity (%)	14.5	17.7
Permeability (Md)	30	91
Connate Water (%)	33.3	31.3
Thickness (ft)	7.2	10.6
Original Oil-in-Place (Bbls/ac-ft)	690	867

Production Summary:

Original Oil in Place	98.2 MM Bbls.
Est. Primary Recovery Factor	14.5%
Ultimate Primary Recovery	14.1 MMBO
Recovery to 1-1-62	9.5 MMBO
Remaining Primary Oil	4.6 MMBO

TABULATION OF INFORMATION
Page Two

Production Summary (continued):

Est. Additional Recovery by Secondary	24 MMBO
Est. Secondary Recovery Factor	24.5%
Est. Total Primary and Secondary Recovery	38.1 MMBO
Recovery of Original Oil in Place	39%

Secondary Plans:

Number of Injection Wells	112
Est. Daily Injection Rate	30000 Bbls.
Total Water Requirements	165 MM Bbls.
Number of Water Supply Wells	4
Estimated Life of Project	16 years

