

RECORDED  
JUL 17 1972

Tabulation of Deviation Surveys --- Cities #3 - Federal No. 2 --- Rig #2 --- Job 3219

<u>Feet</u>	<u>Deviation</u>	<u>Feet</u>	<u>Deviation</u>
200'	1/2°	5415'	3-1/4°
495'	1/2°	5541'	3-1/4°
730'	1/4°	5667'	3-1/4°
987'	1/4°	5798'	3-1/4°
1453'	3/4°	5922'	3-3/4°
1696'	3/4°	6047'	3-1/4°
1949'	3/4°	6171'	3-3/4°
2197'	3/4°	6327'	3-3/4°
2447'	3/4°	6451'	4-1/4°
2696'	3/4°	6608'	3-1/2°
2945'	3/4°	6952'	2-1/4°
3191'	3/4°		
3440'	3/4°		
3688'	1-1/4°		
3905'	1-1/4°		
4120'	1-3/4°		
4357'	2°		
4573'	2-1/4°		
4823'	2-1/2°		
5040'	3-1/4°		
5317'	3-1/4°		

I certify that this Deviation Tabulation was supplied to me by Rowan Drilling-U.S. and is a true and correct tabulation of the Totco readings for this well.

Tommy Phipps  
Tommy Phipps, Executive Vice President

THE STATE OF TEXAS  
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me this 20 day of July, 1972, by TOMMY PHIPPS, Executive Vice President of Black River Corporation, on behalf of said corporation.