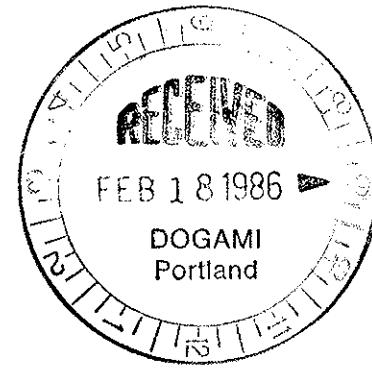


**REPORT  
of  
SUB-SURFACE  
SURVEY**

Arco Oil & Gas Co.

CC 41-6

Oregon



JOB NO. 2161 DATE 1-27-86



2830 WEAR STREET  
BAKERSFIELD, CALIFORNIA  
93308  
(805) 589-5264

DATE 1-27-86  
CALCULATED BY MM

COMPANY Arco Oil & Gas Co.



BAKERSFIELD, CALIFORNIA 93303

(805) 593-5264

SHEET NO. 1 OF 2

JOB NO. 2151

JOB NO.

93302

ADDRESS P.O. Box 147, Bakersfield, Ca.

COUNTY Columbia

STATE Oregon

WELL NO. 42-6 LEASE OG FIELD Oregon

MEASURED DEPTH	COURSE LENGTH	TERMINAL DRAFT ANGLE	TERMINAL DIRECTION OF DEVIATION	AVERAGE DRAFT ANGLE	VERTICAL DEPTH	COURSE DEVIATION	AVERAGE DIRECTION OF DEVIATION	COURSE COORDINATES				TOTAL COORDINATES				SECT.	
								COURSE	TOTAL	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
100 KOP	0°	Vertical			100.00												
143	1°45'	S 38 W			142.99									4.24	3.76		
235	4°30'	S 46 W			234.86									12.86	15.12		
356	9°	S 60 W			355.02												
415	11°	S 66 W			413.12									17.43	24.25		
473	12°	S 63 W			469.96									22.43	34.68		
558	13°45'	S 66 W			552.82									30.59	51.78		
649	16°15'	S 34 W			640.72									36.68	74.53		
776	20°	West			761.42									38.73	113.98		
836	22°	S 87 W			817.43												
847	22°45'	S 83 1/2			827.60									39.31	135.48		
905	24°15'	S 75 W			880.79									39.66	139.65		
956	27°	S 65 W			935.79									43.91	162.37		
1058	31°45'	S 56 W			1015.96									52.99	187.16		
1121	33°	S 47 W			1069.17									75.24	226.44		
1214	39°15'	S 45 W			1144.29									96.22	252.84		
1314	44°	S 45 W			1219.04									134.30	292.28		
1376	48°15'	S 46 W			1301.76									181.27	339.25		
1622	52°	S 48 W			1405.32									212.60	371.13		
1715	56°30'	S 46 1/2			1456.19									245.03	405.93		
1789	56°30'	S 46 W			1496.98									345.47	520.09		
1933	56°45'	S 47 W			1576.20									442.50	621.39		
2056	58°25'	S 47 W			1642.29									595.03	784.45		

DATE 1-27-86

CALCULATED BY MM

COMPANY ARCO Oil & Gas Co.



2830 WEAN STREET BAKERSFIELD, CALIFORNIA 93303

(805) 589-5264

SHEET NO. 2 of 2  
JOB NO. 2161

ADDRESS P.O. Box 147 Bakersfield, Ca. 93302

WELL NO. 41-6

LEASE CG

FIELD Oregon

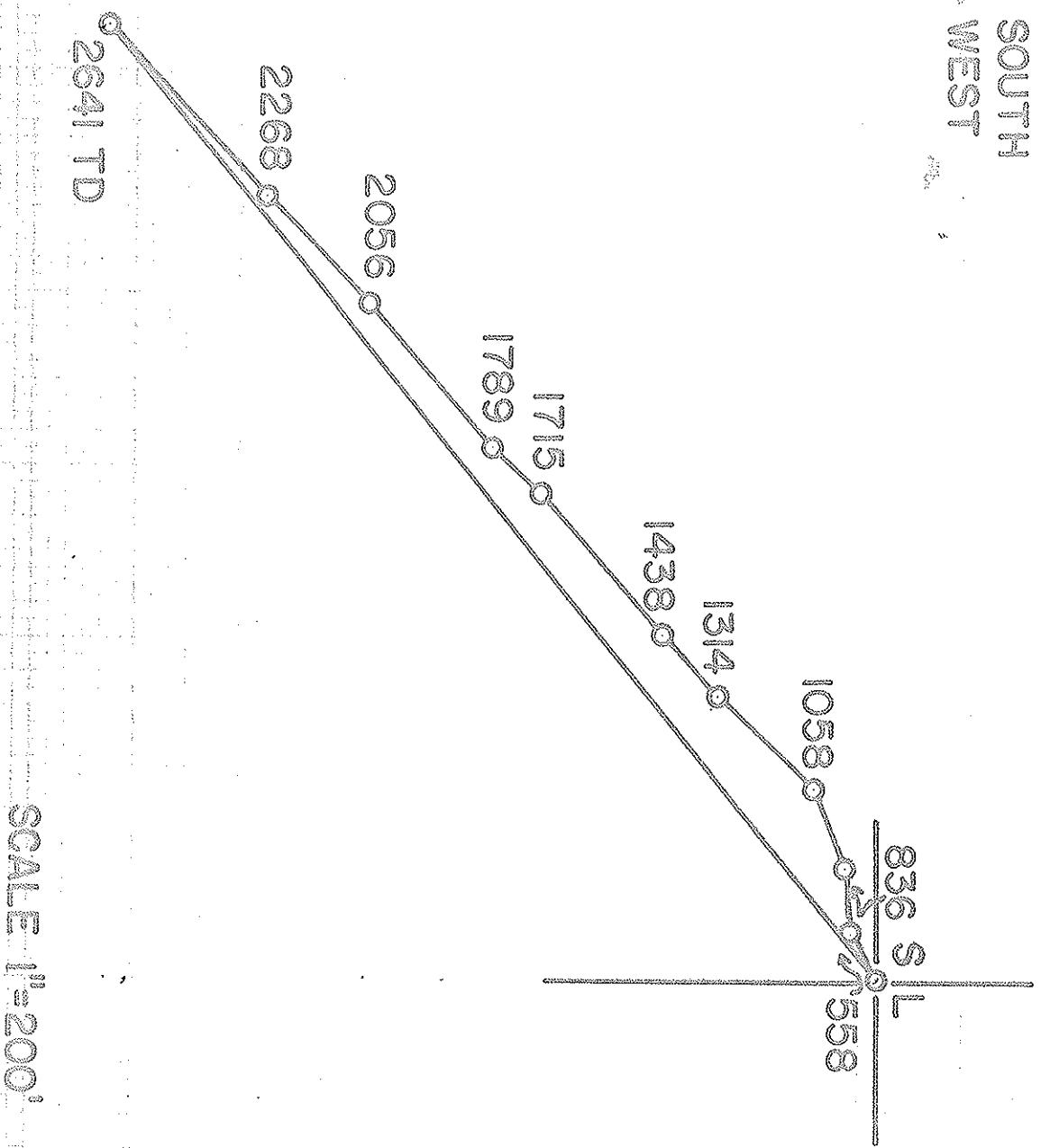
COUNTY Columbia

STATE Oregon

MEASURED DEPTH	COURSE LENGTH	TERMINAL DRIFT ANGLE	TERMINAL DIRECTION OF DEVIATION	AVERAGE DRIFT ANGLE	VERTICAL DEPTH	COURSE DEVIATION	COURSE COORDINATES				TOTAL COORDINATES			
							COURSE	TOTAL	NORTH	SOUTH	EAST	WEST	SECT.	
2176	56°		S 49 W		1707.42							662.46	859.39	
2263	52°30'	S 49 W			1761.17							711.45	915.74	
2362	49°	S 49 W			1820.65							759.21	970.68	
2454	45°30'	S 49 W			1883.10							803.53	1021.66	
2641 TD	40°	S 49 W			2020.42							886.81	1117.46	

Closure @ 1426.59° S 51°34' W

CLOSURE 1426.59 S  $51^{\circ} 34' W$   
886.81 SOUTH  
117.46 WEST



SCALE 1:200