

SUB-SURFACE
DIRECTIONAL
SURVEY
REPORT

YATES PETROLEUM CORPORATION

COMPANY

T-4 CATTLE COMPANY WELL NO. 2

WELL NAME

QUAY COUNTY, NEW MEXICO

STATE AND COUNTY

Magnetic Multi-Shot

TYPE OF SURVEY

MS-1205

JOB NUMBER

Alan Harbert

SURVEYOR

0'-2004' (S/T Hole)

DEPTHS

4-30-83

DATE

West Texas

DISTRICT

TYPE OF SURVEY

JOB NUMBER

SURVEYOR

DEPTHS

DATE

DISTRICT

TYPE OF SURVEY

JOB NUMBER

SURVEYOR

DEPTHS

DATE

DISTRICT

CUSTOMER : YATES PETROLEUM CORP.

WELL # : T-4 CATTLE CO. NO. 2

LOCATION : QUAY CO., NEW MEXICO

DATE : 4-30-83

JOB TYPE : MAGNETIC MULTISHOT

JOB # : MS-1205

SURVEYOR : ALAN HARBERT

DEPTHS : 10' - 2004' (S/T HOLE)

DECL. : 10 DEGREES EAST

ELEV. : 0'

FILE # : WT-B1

METHOD : RADIUS OF CURVATURE

SECTION : 0

FINAL STATION DATA!

THIS SURVEY IS CORRECT TO THE
BEST OF MY KNOWLEDGE AND IS
SUPPORTED BY ACTUAL FIELD DATA.
Larry Massey
COMPANY REPRESENTATIVE

MEASURED	INCL.	HOLE	COURSE	VERTICAL	TRUE	RECTANGULAR	C L O S U R E	DOG-LEG	
DEPTH	ANGLE	DIRECTION	LENGTH	DEPTH		COORDINATES	DISTANCE	DIRECTION	SEVERITY
FEET	DEGS.	DEGS.	FEET	FEET	N/S	feet E/W	FEET	DEGS.	DEGS/100FT

2004.00 1.00 N 44.00 W 10.00 2003.81 3.51 S 11.37 E 11.90at S 72.86 E 0.00

MEASURED INCL. HOLE RECTANGULAR C L D S U R E DOG-LEG
DEPTH ANGLE DIRECTION RECORDINATES DISTANCE DIRECTION SEVERITY
FEET DEGS. FEET DEGS. FEET E/W FEET DEGS. DG/100FT

0.00 0.00 N 00.00 E 0.00 0.00 0.00at N 00.00 E 0.00 0.00
390.00 1.25 S 51.00 E 390.00 389.97 2.68 S 3.31 E 4.25at S 51.00 E .32
483.00 1.25 S 46.00 E 93.00 482.95 4.02 S 4.83 E 6.28at S 50.19 E .12
577.00 1.50 S 39.00 E 94.00 576.92 5.68 S 6.35 E 8.52at S 48.16 E .32
671.00 1.25 S 42.00 E 94.00 670.89 7.40 S 7.81 E 10.76at S 46.56 E .28

766.00 1.00 S 50.00 E 95.00 765.87 8.69 S 9.15 E 12.62at S 46.47 E .31
857.00 .75 S 88.00 E 91.00 856.86 9.18 S 10.43 E 13.89at S 48.63 E .68
949.00 .75 S 77.00 E 92.00 948.86 9.34 S 11.62 E 14.91at S 51.21 E .16
1041.00 .75 S 81.00 E 92.00 1040.85 9.57 S 12.80 E 15.98at S 53.22 E .06
1135.00 .50 N 40.00 E 94.00 1134.84 9.22 S 13.72 E 16.53at S 56.08 E .69

1229.00 .50 N 05.00 E 94.00 1228.84 8.48 S 14.03 E 16.39at S 58.85 E .32
1322.00 .50 N 32.00 W 93.00 1321.84 7.70 S 13.84 E 15.84at S 60.90 E .34
1414.00 .25 N 01.00 E 92.00 1413.83 7.13 S 13.68 E 15.43at S 62.42 E .35
1507.00 .25 N 06.00 E 93.00 1506.83 6.73 S 13.71 E 15.27at S 63.86 E .02
1600.00 .25 N 00.00 E 93.00 1599.83 6.32 S 13.73 E 15.11at S 65.27 E .03

1694.00 .25 N 18.00 W 94.00 1693.83 5.92 S 13.67 E 14.89at S 66.58 E .08
1709.00 .25 N 22.00 W 15.00 1708.83 5.86 S 13.64 E 14.85at S 66.76 E .12
1724.00 .50 N 39.00 W 15.00 1723.83 5.77 S 13.59 E 14.77at S 66.99 E 1.81
1739.00 .50 N 39.00 W 15.00 1738.83 5.67 S 13.51 E 14.65at S 67.23 E 0.00
1754.00 .50 N 45.00 W 15.00 1753.83 5.57 S 13.42 E 14.53at S 67.45 E .35

1769.00 .50 N 48.00 W 15.00 1768.83 5.48 S 13.33 E 14.41at S 67.64 E .12
1784.00 .75 N 52.00 W 15.00 1783.83 5.38 S 13.20 E 14.26at S 67.83 E 1.69
1799.00 .75 N 70.00 W 15.00 1798.83 5.28 S 13.03 E 14.06at S 67.93 E 1.56
1814.00 1.00 N 78.00 W 15.00 1813.82 5.22 S 12.81 E 13.84at S 67.83 E 1.85
1829.00 1.00 N 77.00 W 15.00 1828.82 5.16 S 12.56 E 13.58at S 67.64 E .12

YATES PETROLEUM CORP.

WELL # T-4 CATTLE CO. NO. 2

LOCATION QUAY CO., NEW MEXICO

DATE 4-30-83

JOB TYPE MAGNETIC MULTISHOT

JOB # MS-1205

SURVEYOR ALAN HARBERT

DEPTHS 0' - 2004' (S/T HOLE)

DECL. 10 DEGREES EAST

ELEV. 0'

FILE # WT-B1

FINAL STATION DATA:

MD. 2004.00

TVD. 2003.81

N/S -3.51

E/W 11.37

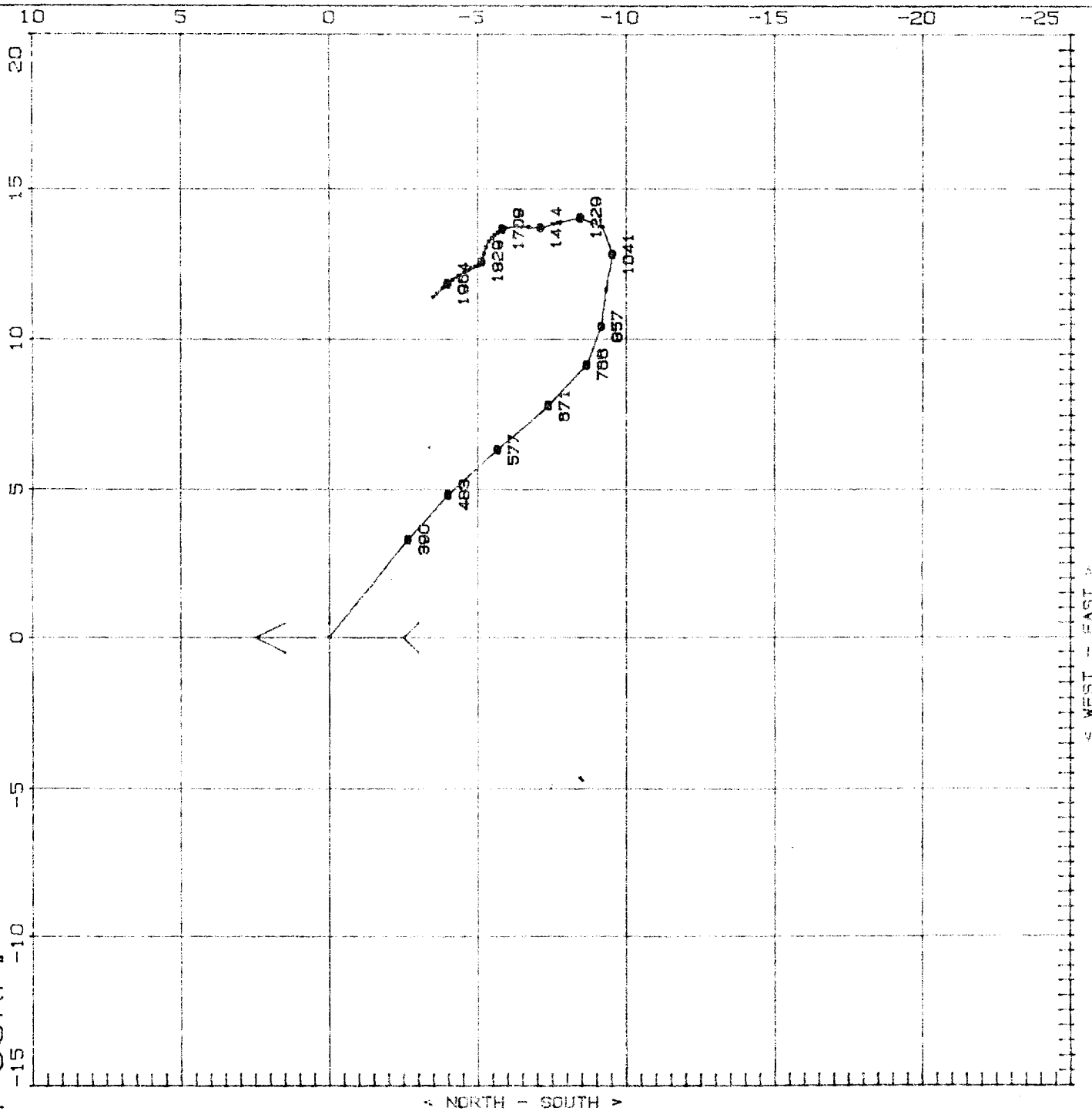
CLOSURE DISTANCE

11.90 FEET

CLOSURE DIRECTION

S .72 E

1 IN. = 5 FT.



SURVEY CERTIFICATIONSTATE TEXASCOUNTY OF MIDLAND

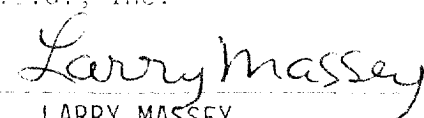
I, D. A. Harbert, in the employ of D.I.G., Inc., did on the days of 4-30, 1983 through 4-30, 1983 conduct or supervise the taking of a Magnetic Multi-Shot survey by the method of magnetic orientation from a depth of 0 feet to 2004 feet, with recordings of inclination being obtained at approximately intervals of random feet.

This survey was conducted at the request of YATES PETROLEUM CORPORATION for their T-4 Cattle Company No. 2, Quay County, State of New Mexico in the _____ field.

The data for this survey were obtained by me according to standards and procedures as set forth by D.I.G., Inc., and is true and correct to the best of my knowledge.


D.A. HARBERT

The data for this survey has been examined by me and conforms to the principles and procedures as set forth by D.I.G., Inc.


LARRY MASSEY