



GREAT LAND

Directional Drilling, Inc.



PROPOSAL

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
EXHIBIT NO.	<u>E</u>
CASE NO.	_____

Specializing in horizontal drilling

HORIZONTAL WELL PROPOSAL
BY
GREAT LAND DIRECTIONAL DRILLING, INC.
FOR

VETERAN EXPLORATION
SAN ISIDRO COUNTY, NEW MEXICO
JUNE 11, 1991

SUBMITTED BY,
STEPHEN E. RATCLIFF

GENERAL WELL INFORMATION

This will be a new well

8-3/4" hole to total depth

Mancos "A" at 3,940 feet T.V.D.

Mancos "B" at 4,115 feet T.V.D.

Mancos "C" at 4,272 feet T.V.D.

Mancos "D" at 4,397 feet T.V.D.

BHL $\pm$ 4,000 feet total displacement

Direction - North 10.00 degrees East

GREAT LAND DIRECTIONAL DRILLING, INC.
 ROCKY MOUNTAIN REGION
 P.O. BOX 9619
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DIRECTIONAL WELL PLAN for VETERAN EXPLORATION

Well.....: JOHNSON #7-3
 Field.....: RIO PUERCO

Prepared.: 06/11/91

Direction at...: N,10.00,E
 True elevation.: 7015.00

Computation...: RADIUS OF CURVATURE
 Base ID.....: 73

WELL PROFILE

STATION IDENTIFICATION	MEAS DEPTH	INCLN ANGLE	VERT-DEPTHS BKB SUB-S	SECT DIST	DIRECTION BEARING	REL-COORDINATES FROM-WELLHEAD	DL/ 100
KB	0	0.00	0 -7015	0	N 10.00 E	0 N 0 E	0.0
KOP BUILD 14.00/100	3874	0.00	3874 -3141	0	N 10.00 E	0 N 0 E	0.0
MANCOS "A"	3940	9.24	3940 -3075	5	N 10.00 E	5 N 1 E	14.0
MANCOS "B"	4132	36.03	4115 -2900	78	N 10.00 E	77 N 14 E	14.0
MANCOS "C"	4420	76.36	4272 -2743	313	N 10.00 E	308 N 54 E	14.0
END OF 14.00 BUILD	4482	85.03	4282 -2733	374	N 10.00 E	368 N 65 E	14.0
MANCOS "D"	5809	85.03	4397 -2618	1696	N 10.00 E	1670 N 295 E	0.0
TD	8122	85.03	4597 -2418	4000	N 10.00 E	3940 N 695 E	0.0

Great Land Directional Drilling, Inc.

VERTICAL SECTION VIEW

VETERAN EXPLORATION

JOHNSON #7-3

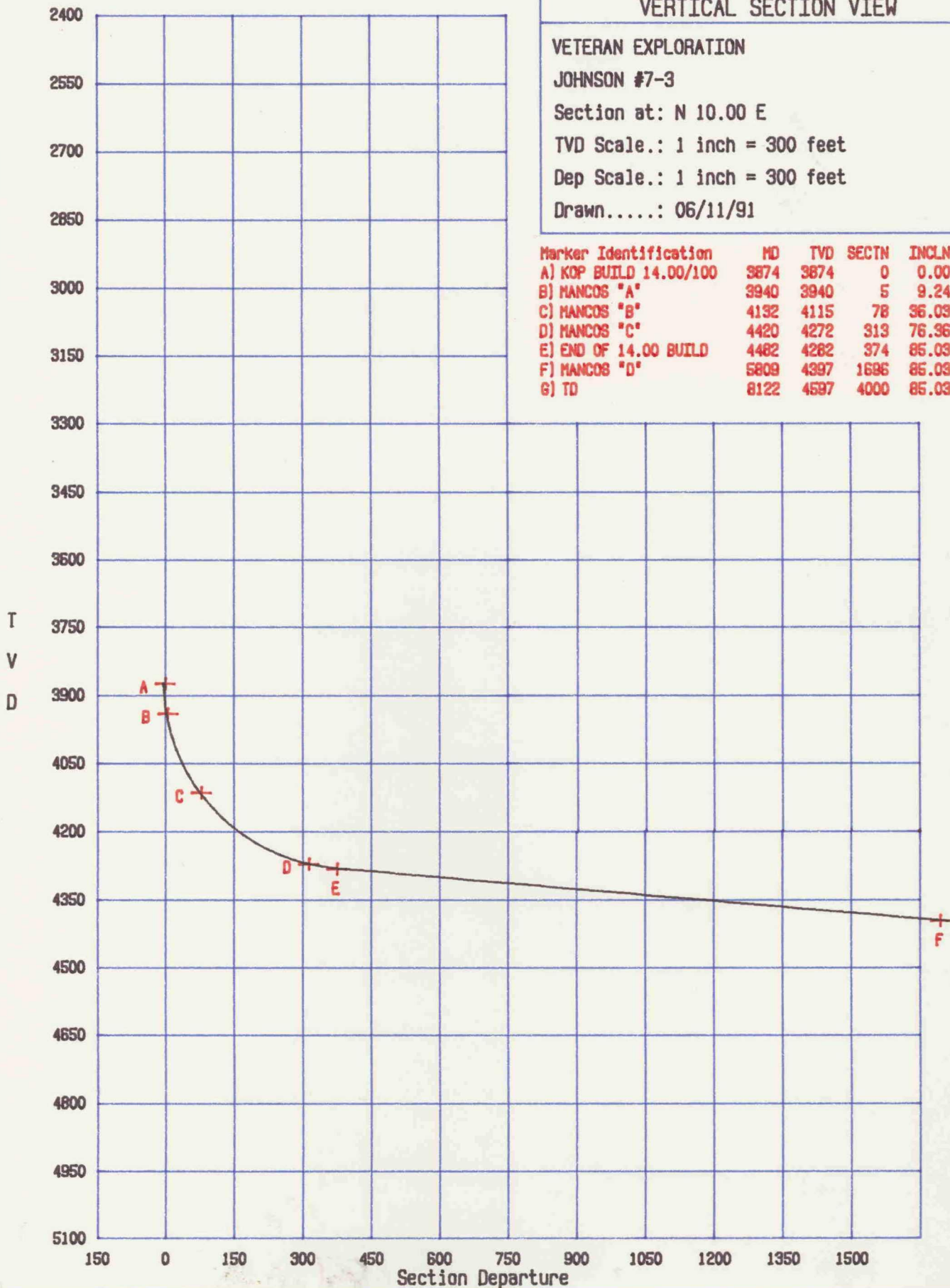
Section at: N 10.00 E

TVD Scale.: 1 inch = 300 feet

Dep Scale.: 1 inch = 300 feet

Drawn.....: 06/11/91

Marker Identification	MD	TVD	SECTN	INCLN
A) KOP BUILD 14.00/100	3874	3874	0	0.00
B) MANCOS "A"	3940	3940	5	9.24
C) MANCOS "B"	4132	4115	78	36.03
D) MANCOS "C"	4420	4272	313	76.36
E) END OF 14.00 BUILD	4482	4282	374	85.03
F) MANCOS "D"	5809	4397	1696	85.03
G) TD	8122	4597	4000	85.03



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Marker Identification	MD	N/S	E/W
A) KB	0	0 N	0 E
B) KOP BUILD 14.00/100	3874	0 N	0 E
C) MANCOS "A"	3940	5 N	1 E
D) MANCOS "B"	4132	77 N	14 E
E) MANCOS "C"	4420	308 N	54 E
F) END OF 14.00 BUILD	4482	368 N	65 E
G) MANCOS "D"	5809	1670 N	295 E
H) TD	8122	3940 N	695 E

PLAN VIEW

VETERAN EXPLORATION

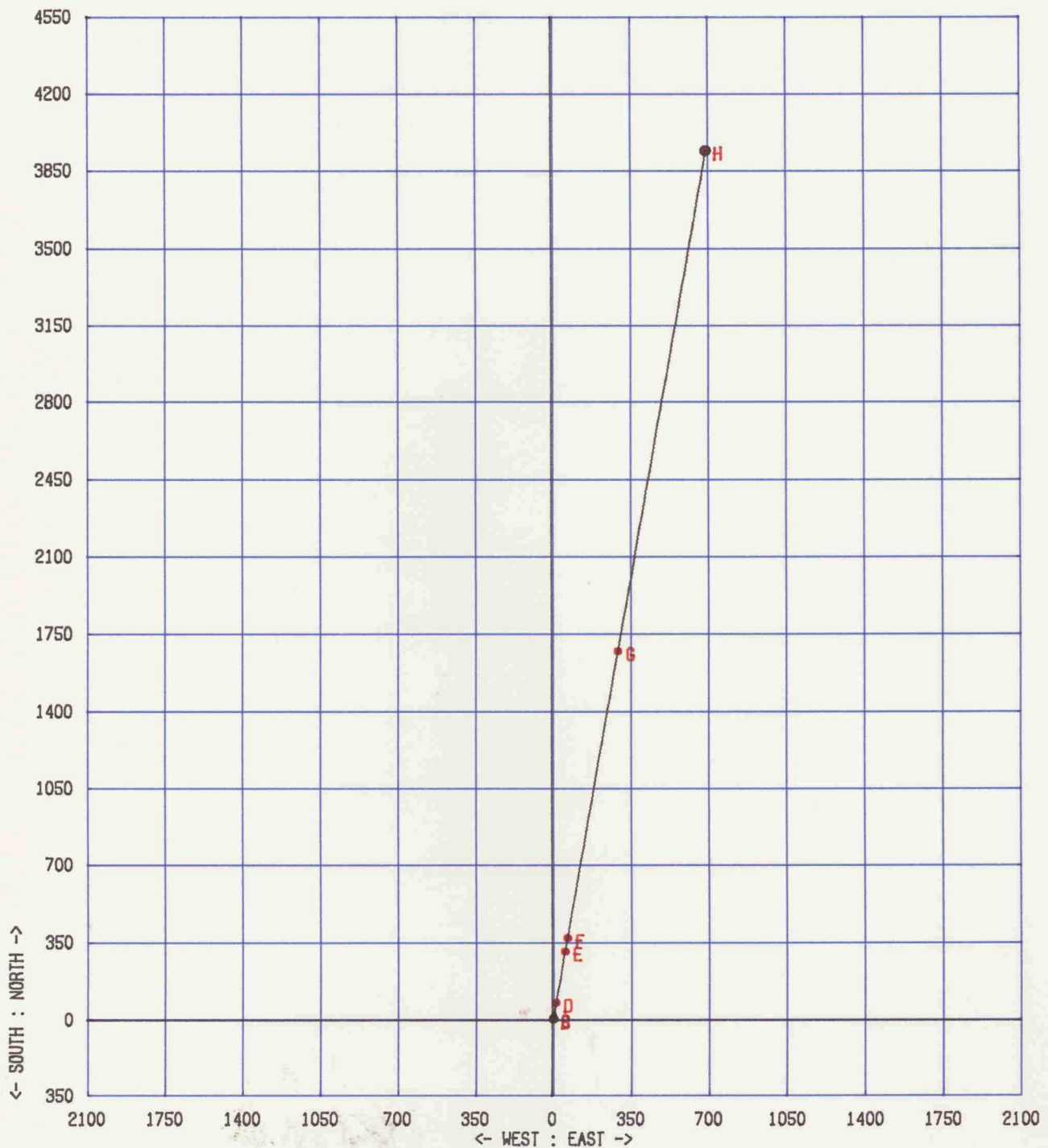
JOHNSON #7-3

CLOSURE.....: 4000 ft N 10.00 E

DECLINATION.: 12.00 E

SCALE.....: 1 inch = 700 feet

DRAWN.....: 06/11/91



GREAT LAND DIRECTIONAL DRILLING SERVICES

- ONSITE DIRECTIONAL DRILLING SUPERVISION
- ONSITE DRILLING CONSULTANTS
- ONSITE DRILLING ENGINEERS
- HORIZONTAL (lateral) DRILLING SERVICES & EQUIPMENT
- PETROLEUM ENGINEERING SERVICES
- DOWNHOLE DRILLING TOOLS
- STEERABLE DRILLING SYSTEMS
- DOWNHOLE DRILLING MOTORS
- DEFLECTION & ORIENTATION TOOLS
- PORTABLE OFFSHORE SERVICE UNITS
- DIRECTIONAL & LATERAL STEERING TOOLS
- WIRE LINE TRUCKS
- SIDE DOOR ENTRY SUBS & KELLY BUSHING STANDS
- MAGNETIC SINGLE SHOT RENTALS
- MAGNETIC MULTIPLE SHOT SURVEYS
- MAGNETIC GYROSCOPIC SINGLE & MULTIPLE SHOT SURVEYS
- SURFACE RECORDING GYRO ORIENTATION & SURVEY SERVICE
- COMPUTER WELL PLANNING
 - Survey Calculations
 - Well Collision Avoidance Programs
 - 3-Dimensional Well Bore Calculations
 - Traveling Cylinder
 - Hydraulics
 - Stabilization
 - Rig Optimization
- MONEL COLLAR & STABILIZATION RENTALS
- DRILL COLLAR RENTALS
- SLICK LINE SURVEY UNITS
- CORE ORIENTATION SERVICES

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