

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1301 S.W. Grand Avenue
Alameda, NM 88210

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.

NM 15295

6. IF INDIAN, ALLOTTEE OR TRIBAL NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

C K 7 Federal No. 2

9. API WELL NO.

30-015-33421

10. FIELD AND POOL, OR WILDCAT

Carlsbad South; Morrow

11. SEC. T. R., M., OR BLOCK AND SURVEY OR AREA

Sec. 7; T24S; R26E

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REVR. ☐ Other _____

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P O Box 140907 Irving Tx. 75014-0907

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 2520' FNL & 1415' FEL

At top prod. interval reported below 1656' FSL & 1237' FEL

At total depth 1526' FSL & 1238' FEL

RECEIVED

JAN 21 2005

OCU-CHIESIA

14. PERMIT NO. DATE ISSUED

12. COUNTY OR PARISH

Eddy

13. STATE

NM

15. DATE SPUDDED

04-19-04

16. DATE T.D. REACHED

05-28-04

17. DATE COMPL. (Ready to prod.)

11-14-04

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*

3758' GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

MD 12302' TVD 12135

21. PLUG BACK T.D., MD & TVD

MD 12185' TVD 12028'

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

ROTARY TOOLS

All

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

MD 11820' - 11932' Carlsbad South; Morrow

TVD 11670' - 11784' Carlsbad South; Morrow

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Spaced Neutron, DLL Microguard, Cement Bond Log

27. WAS WELL CORED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 - 3/8" J-55	54.5#	397'	17-1/2"	715 sx PremPlus/IntC circ 20 sx	
9-5/8" HCP-110/LTC	40#	1906'	12-1/4"	450 sx PremPlus TOC surface	
5-1/2" P-110/N-80	17#	12346'	8-3/4"	2445 sx IntH/SupH/IntC/PremNeat TOC 645'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	11730'	11730'

31. PERFORATION RECORD (Interval, size and number)

12132' - 12220' 6 SPF 66 HOLES SET CIBP @ 12090' w/ 35' cmt

12028' - 12044' 6 SPF 96 HOLES SET CIBP @ 12020' w/ 35' cmt

11820' - 11932' 6 SPF 174 HOLES

32. ACID. SHOT. FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
12028' - 12044'	47000gal foam gel CO2/20500# 18/40 VProp
11820' - 11932'	110000gal foam gel CO2/70000# 18/40 VProp

33. PRODUCTION

DATE FIRST PRODUCTION 11-14-04		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Producing	
DATE OF TEST 12-11-04	HOURS TESTED 24	CHOKE SIZE 20/64	PROD'N. FOR TEST PERIOD →	OIL—BSL. -0-	GAS—MCF. 991	WATER—BSL. 36	GAS-OIL RATIO N/A
FLOW. TUBING PRESS. 1285	CASING PRESSURE 100	CALCULATED 24-HOUR RATE →	OIL—BSL. -0-	GAS—MCF. 991	WATER—BSL. 130	OIL GRAVITY-API (CORR.) NA	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

35. LIST OF ATTACHMENTS

NM C-122, Electric logs and Inclination Summary

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Natalie Kuegel

TITLE

Regulatory Analyst

DATE January 17, 2005

*(See Instructions and Spaces for Additional Data on Reverse Side)

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-33421	Pool Code 73960	Pool Name Carlsbad South; Morrow
Property Code 34014	Property Name CK 7 Federal	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT CO.	Elevation 3758'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	7	24-S	26-E		2520'	NORTH	1415'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	7	24-S	26-E		1526'	SOUTH	1238'	EAST	EDDY
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 1 LOT 2 LOT 3 LOT 4 RECEIVED JAN 18 2005 CK 7 Federal No. 2 GEODETIC COORDINATES NAD 27 NME Y= 448053.4 N X= 501632.2 E LAT.= 32°13'54.54"N LONG.= 104°19'41.00"W SHL Penetration Pt. BHL 1656' 1526' 1247' 1237' 1238' 3764.3' 3757.4' 3743.7' 3739.9' 1415' 2520' 600' 600'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Zeno Farris Signature Zeno Farris Printed Name Manager Operations Admin. Title January 17, 2005 Date SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. September 02, 2003 Date Surveyed AWB Signature & Seal of Professional Surveyor GARY EIDSON 9/4/03 03.11.0936 Certificate No. GARY EIDSON 12841
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37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
				Bone Springs	5533'	
				Strawn	10633'	
				Atoka	11132'	
				Morrow	11553'	

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RECEIVED

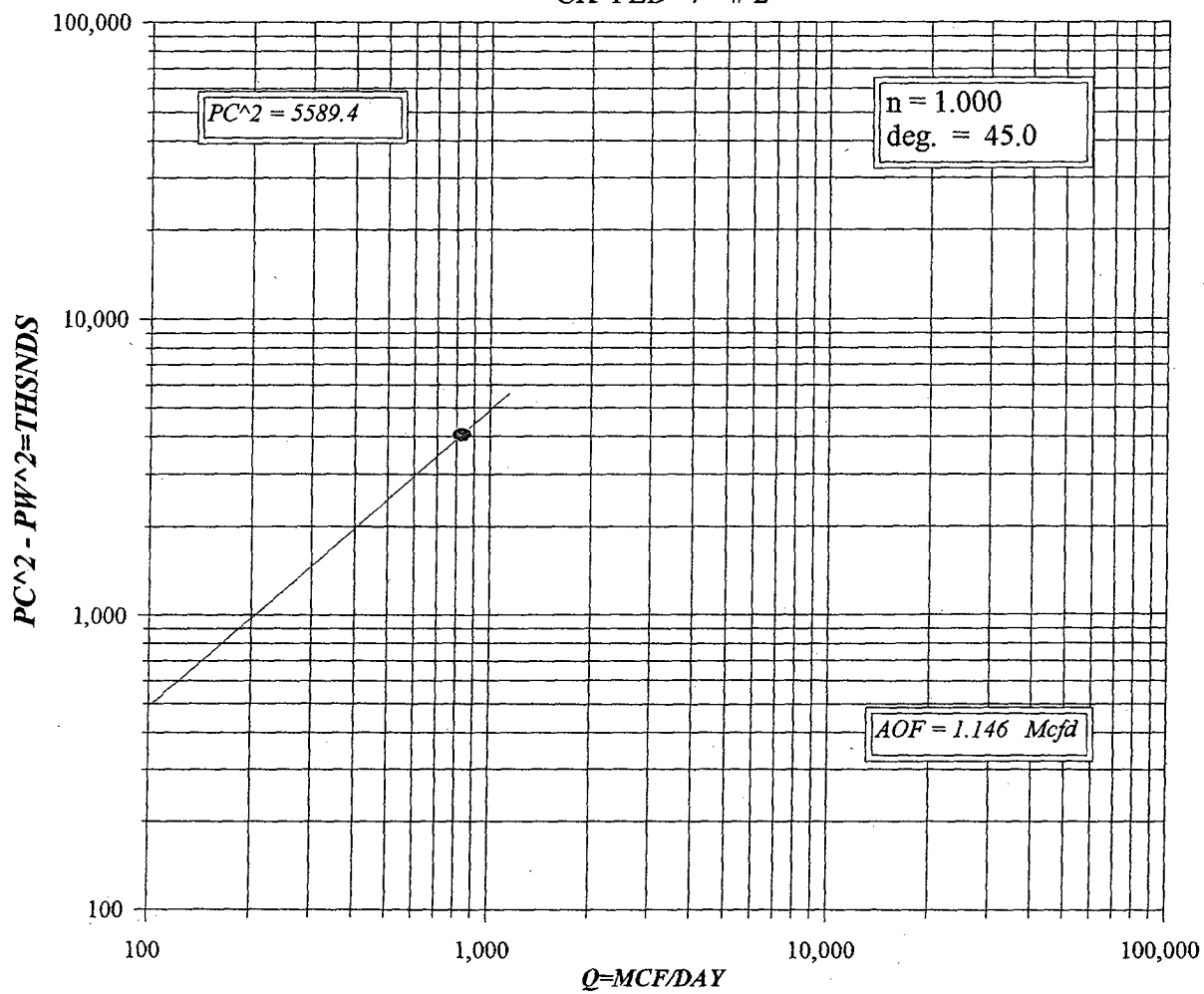
JAN 21 2005

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator GRUY				Lease or Unit Name CK7 FED			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12/10/2004		Well No. 2	
Completion Date		Total Depth 12329		Plug Back TD 12280		Elevation	
Csg. Size 5 1/2		Wt. d 17 4.982		Set At 12329		Perforations: From: 11820 To: 11932	
Tbg. Size 2 7/8		Wt. d 6.5 2.441		Set At 11730		Perforations: From: To:	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11730		Formation MORROW	
Producing Thru TUBING		Reservoir Temp.		Mean Annual Temp. 60		Baro. Press.-P _i 13.2	
L 11736		H 11736		Gg 0.655		%CO ₂ 9.245	
				%N ₂ 0.271		%H ₂ S 0	
				Prover 0		Meter Run 4.026	
						Taps FLG	
FLOW DATA				TUBING DATA			
No.	Prover Line Size	Onifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.
SI						2351	
1	4.026	X 1.625	225	33"	78	1250	
2							
3							
4							
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}
1							
2							
3	TOTAL		FLOW	METER			
4							
5							
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio		
1					N/A		
2	TOTAL	FLOW	METER		A.P. I. Gravity of Liquid Hydrocarbons		
3					N/A		
4					Specific Gravity Separator Gas		
5					0.655		
					Specific Gravity Flowing Fluid		
					XXXXXX		
					Critical Pressure		
					630		
					P.S.I.A.		
					N/A		
					Critical Temperature		
					356		
					R		
					N/A		
					R		
P _c	2364.2	P _w	5589.4				
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²			
1		1239.8	1537	4052.4			
2							
3							
4							
5							
					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.379$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.379$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.146$		
Absolute Open Flow							
1 Mcfd @ 15.025							
Angle of Slope (°)							
45							
Slope, n:							
1.000							
Remarks: NO LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By:		Calculated By:		Checked By:	
PRO WELL TESTING		MERY BUECKER		BM			

GRUY
CK FED "7" # 2



COMPANY : GRUY

LEASE : CK*7" FED

WELL NO. : 2

Pc = 2364.2 Pc2 = 5589.4

UNIT :

SECTION : 7

TOWNSHIP : 24S

P12 = 1528.2 Pw = 1239.8

L : 11736

H : 11736

L/H :

1

G/GMIX : 0.655

DATE : 12/10/04

%CO2 : 9.245

%N2 : 0.271

H2S :

RANGE : 26E

d : 2.441

Fr : 0.010763

GH :

7687.1

VOL 1 : 831

PSIA 1 : 1236.2

RESV.TEMP 191.4

Pc2-Pw2 = 4052.4 Pw2 = 1537.0

VOL 2 :

PSIA 2 :

SHUT-IN PR = 2364.2

#DIV/O!

VOL 3 :

PSIA 3 :

#DIV/O!

VOL 4 :

PSIA 4 :

#DIV/O!

PCR : 630

n = 1.000

TCR : 356

Pc2/(Pc2-Pw2) = 1.379

LINE

RATE 1

RATE 2

RATE 3

RATE 4

1ST

2ND

1ST

2ND

1ST

2ND

1ST

2ND

1	QM	0.831	0.831	0.000	0.000	0.000	0.000	0.000	0.000
2	TW	534	534	534	534	534	534	534	534
3	Ts	651.4	651.4	651.4	651.4	651.4	651.4	651.4	651.4
4	T	592.7	592.7	592.7	592.7	592.7	592.7	592.7	592.7
	PR (est)	1.96		0.00		0.00		0.00	
5	Z(est)	0.861	0.849	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
6	TZ	510.4	503.3	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
7	GH/TZ	15.059	15.273	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
8	eS	1.759	1.773	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
9	I-e-S	0.431	0.436	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
10	Pt	1236.2	1236.2	0.0	0.0	0.0	0.0	0.0	0.0
11	P12 /1000	1528.2	1528.2	0.0	0.0	0.0	0.0	0.0	0.0
12	Fr	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763
13	Fc=FrTZ	5.494	5.417	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
14	FcQm	4.57	4.50	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
15	L/H(FcQm)2	20.8	20.3	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
16	Fw	8.99393	8.836376	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
17	Pw2	1537.2	1537.0	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
18	Ps2	2703.9	2725.3	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
19	Ps	1644.3	1650.8	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
20	P	1440.3	1443.5	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
21	Pr	2.29	2.29	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!
22	Tr	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
23	Z	0.849	0.849	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!	#DIV/O!

[Pc2/Pc2-Pw2]n = 1.379

AOF= Q 1.146

FORM C122-D



Laboratory Services, Inc.

2609 West Marland
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P.O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION CK 7 Fed. #2
COMPANY: Gruy Petroleum
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED 12/10/04 2:00pm
ANALYSIS DATE: 12/13/04
PRESSURE - PSIG 208
SAMPLE TEMP. °F 71
ATMOS. TEMP. °F 68

GAS (XX) LIQUID ()
SAMPLED BY: Merv Buecker
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.271	
Carbon Dioxide (CO2)	9.245	
Methane (C1)	88.723	
Ethane (C2)	1.463	0.390
Propane (C3)	0.228	0.063
I-Butane (IC4)	0.037	0.012
N-Butane (NC4)	0.033	0.010
I-Pentane (IC5)	0.000	0.000
N-Pentane (NC5)	0.000	0.000
Hexane Plus (C6+)	0.000	
	100.000	0.475

BTU/CU.FT. - DRY 930
AT 14.650 DRY 927
AT 14.650 WET 911
AT 14.73 DRY 932
AT 14.73 WET 916

MOLECULAR WT. 18.9570

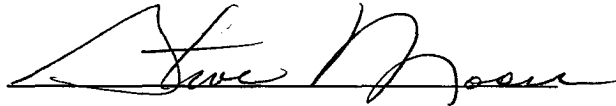
SPECIFIC GRAVITY -
CALCULATED 0.655
MEASURED

OPERATOR: GRUY PETROLEUM
WELL/LEASE: C&K 7 FED 2
COUNTY: EDDY, NM

080-0023

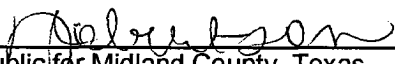
STATE OF NEW MEXICO
DEVIATION REPORT

170	3/4
320	1/2
976	1
1,263	1 1/4
1,612	1/2
2,241	1 1/2
2,565	1 1/2
2,941	1/2
3,518	1/2
4,109	3/4
4,585	1/4
4,968	1
5,453	1 1/4
6,151	1 1/4
6,468	2 3/4
6,946	1/2
7,560	1

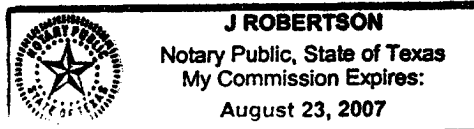
By: 

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on this 7th day of June, 2004, by
Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.


Notary Public for Midland County, Texas

My Commission Expires: 8/23/2007





**Gruy Petroleum Management Co.
New Mexico
Eddy County
Sec. 07-T24S-R26E
CK 7 Federal # 2 - MWD Survey**

**Sperry-Sun
Survey Report**

RECEIVED
JAN 21 2005
OCCUPANCY

15 June, 2004

Data Source: Information from Location

Survey Ref: svy7590

Prepared by: Admin
Checked by:
Approved by:

HALLIBURTON

HALLIBURTON

Gruy Petroleum Management Co.
New Mexico
Eddy County

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate ("'/100ft)	Comment
			TVD (ft)	Northings (ft)	Eastings (ft)			
Gyro Surveys								
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00		
100.00	0.250	153.380	100.00	0.20 S	0.10 E	0.21	0.25	
200.00	0.250	139.210	200.00	0.56 S	0.34 E	0.61	0.06	
300.00	0.250	192.050	300.00	0.93 S	0.44 E	0.99	0.22	
400.00	0.500	27.880	400.00	0.76 S	0.59 E	0.85	0.74	
500.00	0.750	26.720	499.99	0.21 N	1.09 E	-0.02	0.25	
600.00	1.000	11.550	599.98	1.65 N	1.56 E	-1.36	0.34	
700.00	0.250	42.390	699.97	2.66 N	1.88 E	-2.30	0.80	
800.00	0.250	20.220	799.97	3.03 N	2.11 E	-2.62	0.10	
900.00	0.500	297.060	899.97	3.43 N	1.79 E	-3.08	0.53	
1000.00	1.000	330.900	999.96	4.39 N	0.98 E	-4.16	0.65	
1100.00	1.500	339.730	1099.94	6.38 N	0.10 E	-6.27	0.53	
1200.00	2.000	317.580	1199.89	8.90 N	1.53 W	-9.03	0.83	
1300.00	2.500	311.430	1299.81	11.63 N	4.34 W	-12.20	0.55	
1400.00	1.750	290.250	1399.75	13.60 N	7.41 W	-14.67	1.07	
1500.00	1.000	296.080	1499.72	14.52 N	9.63 W	-15.95	0.76	
1600.00	1.500	227.900	1599.70	14.02 N	11.38 W	-15.77	1.46	
1700.00	0.750	211.740	1699.68	12.59 N	12.70 W	-14.58	0.81	
1800.00	1.750	207.560	1799.65	10.68 N	13.75 W	-12.88	1.00	
1900.00	1.750	211.400	1899.61	8.02 N	15.25 W	-10.52	0.12	
2000.00	1.750	216.240	1999.56	5.49 N	16.95 W	-8.31	0.15	
2100.00	2.000	216.070	2099.51	2.84 N	18.88 W	-6.04	0.25	
2200.00	1.250	228.910	2199.47	0.72 N	20.73 W	-4.26	0.83	
2300.00	1.750	224.740	2299.43	1.09 S	22.62 W	-2.81	0.51	
2400.00	1.750	225.580	2399.38	3.24 S	24.79 W	-1.06	0.03	
2500.00	1.500	217.920	2499.34	5.34 S	26.68 W	0.68	0.33	
2600.00	1.500	220.760	2599.31	7.36 S	28.34 W	2.39	0.07	
2700.00	1.000	228.600	2699.29	8.93 S	29.85 W	3.68	0.53	
2800.00	1.250	227.430	2799.27	10.25 S	31.31 W	4.72	0.25	
2900.00	0.750	194.270	2899.25	11.62 S	32.27 W	5.91	0.75	
3000.00	1.000	228.110	2999.24	12.84 S	33.09 W	6.97	0.56	
3100.00	1.000	236.940	3099.23	13.89 S	34.47 W	7.78	0.15	
3200.00	1.000	227.780	3199.21	14.96 S	35.84 W	8.59	0.16	
3300.00	1.000	235.610	3299.20	16.04 S	37.21 W	9.42	0.14	
3400.00	0.750	204.450	3399.18	17.13 S	38.20 W	10.32	0.53	
3500.00	1.000	238.280	3499.17	18.18 S	39.21 W	11.18	0.56	
3600.00	1.000	203.120	3599.16	19.44 S	40.30 W	12.24	0.60	
3700.00	0.750	191.950	3699.15	20.88 S	40.78 W	13.58	0.30	
3800.00	0.750	233.790	3799.14	21.91 S	41.44 W	14.48	0.54	
3900.00	1.000	216.620	3899.13	23.00 S	42.49 W	15.37	0.36	

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4000.00	0.750	222.460	3999.12	24.18 S	43.45 W	16.37	0.27	
4100.00	0.750	239.300	4099.11	25.00 S	44.46 W	17.00	0.22	
4200.00	1.000	227.130	4199.10	25.93 S	45.66 W	17.71	0.31	
4300.00	1.000	209.960	4299.08	27.28 S	46.73 W	18.86	0.30	
4400.00	1.250	218.800	4399.06	28.88 S	47.85 W	20.25	0.30	
4500.00	1.250	209.630	4499.04	30.68 S	49.08 W	21.81	0.20	
4600.00	1.250	209.470	4599.01	32.58 S	50.15 W	23.49	0.00	
4700.00	1.500	205.300	4698.99	34.71 S	51.25 W	25.41	0.27	
4800.00	1.500	194.140	4798.95	37.16 S	52.13 W	27.67	0.29	
4900.00	1.000	208.980	4898.93	39.20 S	52.87 W	29.55	0.59	
5000.00	1.000	220.810	4998.91	40.62 S	53.86 W	30.78	0.21	
5100.00	1.000	222.650	5098.90	41.92 S	55.02 W	31.86	0.03	
5200.00	1.250	216.480	5198.88	43.44 S	56.26 W	33.15	0.28	
5300.00	1.250	219.320	5298.85	45.16 S	57.60 W	34.61	0.06	
5400.00	1.250	218.150	5398.83	46.86 S	58.97 W	36.05	0.03	
5500.00	1.500	209.490	5498.80	48.86 S	60.29 W	37.80	0.32	
5600.00	1.250	208.330	5598.77	50.96 S	61.45 W	39.66	0.25	
5700.00	1.250	207.170	5698.75	52.89 S	62.46 W	41.39	0.03	
5800.00	1.250	209.000	5798.72	54.81 S	63.49 W	43.11	0.04	
5900.00	1.250	211.830	5898.70	56.69 S	64.60 W	44.78	0.06	
6000.00	1.500	212.670	5998.67	58.72 S	65.88 W	46.55	0.25	
6100.00	2.000	187.490	6098.63	61.56 S	66.81 W	49.18	0.91	
6200.00	2.250	173.330	6198.56	65.24 S	66.81 W	52.81	0.58	
6300.00	2.250	171.170	6298.48	69.12 S	66.28 W	56.73	0.08	
6400.00	2.250	166.010	6398.40	72.97 S	65.51 W	60.65	0.20	
6500.00	2.250	167.840	6498.33	76.79 S	64.62 W	64.57	0.07	
6600.00	2.000	170.680	6598.26	80.43 S	63.92 W	68.28	0.27	
6700.00	1.500	176.520	6698.21	83.46 S	63.56 W	71.32	0.53	
6800.00	1.000	197.350	6798.19	85.60 S	63.74 W	73.40	0.67	
6900.00	0.500	198.180	6898.18	86.85 S	64.14 W	74.56	0.50	
7000.00	0.750	181.030	6998.17	87.92 S	64.28 W	75.59	0.31	
7100.00	0.500	184.860	7098.17	89.01 S	64.33 W	76.65	0.25	
7200.00	0.500	232.700	7198.16	89.71 S	64.72 W	77.28	0.41	
7300.00	0.500	187.530	7298.16	90.40 S	65.12 W	77.89	0.38	
7400.00	0.500	215.370	7398.16	91.19 S	65.43 W	78.62	0.24	
7500.00	1.000	231.200	7498.15	92.09 S	66.36 W	79.35	0.54	
7600.00	0.250	258.880	7598.14	92.68 S	67.26 W	79.77	0.79	
7700.00	0.250	231.550	7698.14	92.86 S	67.64 W	79.88	0.12	Last Gyro Survey @ 7700' md

MWD Survey

7743.00	0.240	297.260	7741.14	92.88 S	67.80 W	79.87	0.62	
7775.00	0.110	69.350	7773.14	92.84 S	67.83 W	79.83	1.01	
7807.00	0.590	120.960	7805.14	92.91 S	67.66 W	79.93	1.65	
7838.00	2.280	194.610	7836.13	93.59 S	67.68 W	80.59	7.06	
7870.00	3.270	180.070	7868.09	95.12 S	67.84 W	82.07	3.77	

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
7902.00	3.080	189.590	7900.04	96.88 S	67.98 W	83.78	1.75	
7934.00	3.660	188.940	7931.99	98.73 S	68.28 W	85.56	1.82	
7966.00	3.910	183.790	7963.92	100.83 S	68.51 W	87.59	1.32	
7998.00	5.300	184.800	7995.81	103.39 S	68.71 W	90.08	4.35	
8029.00	5.440	178.140	8026.68	106.29 S	68.78 W	92.92	2.06	
8061.00	6.620	173.930	8058.50	109.64 S	68.54 W	96.26	3.94	
8093.00	7.370	176.440	8090.26	113.52 S	68.22 W	100.14	2.53	
8125.00	8.070	176.600	8121.97	117.81 S	67.96 W	104.41	2.19	
8157.00	7.640	172.600	8153.67	122.16 S	67.55 W	108.77	2.17	
8188.00	8.450	178.110	8184.37	126.48 S	67.21 W	113.08	3.60	
8220.00	9.110	174.810	8215.99	131.36 S	66.90 W	117.94	2.59	
8252.00	9.410	176.200	8247.58	136.49 S	66.50 W	123.06	1.17	
8283.00	9.320	180.900	8278.16	141.53 S	66.37 W	128.05	2.48	
8315.00	10.420	173.650	8309.69	147.00 S	66.09 W	133.48	5.18	
8347.00	10.760	177.150	8341.15	152.86 S	65.62 W	139.34	2.27	
8379.00	10.900	176.100	8372.58	158.86 S	65.27 W	145.31	0.76	
8411.00	12.240	174.140	8403.92	165.25 S	64.72 W	151.70	4.36	
8442.00	12.960	170.400	8434.18	171.95 S	63.80 W	158.46	3.51	
8474.00	14.370	167.140	8465.27	179.36 S	62.32 W	166.01	5.02	
8506.00	14.920	167.160	8496.23	187.25 S	60.52 W	174.09	1.72	
8538.00	15.500	166.340	8527.11	195.42 S	58.59 W	182.47	1.93	
8570.00	16.100	163.890	8557.90	203.84 S	56.35 W	191.15	2.80	
8602.00	16.720	163.940	8588.60	212.52 S	53.85 W	200.14	1.94	
8633.00	15.910	164.560	8618.35	220.90 S	51.48 W	208.80	2.67	
8665.00	16.280	163.330	8649.10	229.43 S	49.03 W	217.62	1.57	
8696.00	16.530	162.780	8678.83	237.80 S	46.48 W	226.31	0.95	
8728.00	16.570	161.480	8709.51	246.48 S	43.68 W	235.33	1.16	
8760.00	16.550	163.300	8740.18	255.17 S	40.92 W	244.37	1.62	
8792.00	16.870	163.470	8770.83	263.99 S	38.29 W	253.51	1.01	
8824.00	16.490	162.370	8801.48	272.77 S	35.59 W	262.62	1.54	
8855.00	16.770	162.860	8831.19	281.23 S	32.94 W	271.41	1.01	
8887.00	15.930	161.520	8861.89	289.81 S	30.19 W	280.34	2.88	
8919.00	16.270	165.940	8892.64	298.32 S	27.71 W	289.15	3.97	
8951.00	16.940	165.080	8923.30	307.18 S	25.42 W	298.26	2.23	
8982.00	16.950	164.000	8952.96	315.88 S	23.01 W	307.26	1.02	
9014.00	16.980	165.640	8983.57	324.89 S	20.57 W	316.55	1.50	
9046.00	17.320	165.100	9014.14	334.02 S	18.18 W	325.96	1.17	
9078.00	17.320	164.560	9044.69	343.22 S	15.69 W	335.44	0.50	
9111.00	17.200	163.330	9076.21	352.63 S	12.98 W	345.18	1.16	
9143.00	16.540	166.200	9106.83	361.58 S	10.54 W	354.42	3.32	
9175.00	15.990	168.460	9137.55	370.33 S	8.57 W	363.37	2.62	
9207.00	15.960	169.030	9168.31	378.96 S	6.85 W	372.17	0.50	
9239.00	15.980	169.020	9199.08	387.61 S	5.18 W	380.97	0.06	
9270.00	16.690	169.760	9228.83	396.18 S	3.57 W	389.69	2.39	
9302.00	17.110	167.970	9259.44	405.30 S	1.77 W	398.99	2.09	

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
TVD (ft)	Northings (ft)	Eastings (ft)						
9334.00	15.980	168.640	9290.12	414.22 S	0.08 E	408.10	3.58	
9366.00	16.730	164.000	9320.83	422.97 S	2.21 E	417.08	4.71	
9398.00	16.920	161.280	9351.46	431.81 S	4.98 E	426.26	2.53	
9430.00	16.220	162.890	9382.13	440.49 S	7.79 E	435.30	2.62	
9461.00	16.910	160.960	9411.84	448.89 S	10.53 E	444.04	2.85	
9493.00	17.290	161.570	9442.43	457.80 S	13.55 E	453.34	1.31	
9525.00	17.520	160.920	9472.96	466.86 S	16.63 E	462.80	0.94	
9556.00	17.240	160.900	9502.55	475.62 S	19.66 E	471.94	0.90	
9588.00	17.140	160.670	9533.12	484.55 S	22.77 E	481.27	0.38	
9620.00	16.610	162.000	9563.74	493.35 S	25.75 E	490.45	2.05	
9652.00	16.190	162.280	9594.44	501.94 S	28.52 E	499.40	1.34	
9683.00	16.320	159.760	9624.20	510.15 S	31.34 E	507.96	2.31	
9715.00	16.540	163.240	9654.89	518.73 S	34.21 E	516.91	3.15	
9747.00	16.570	165.130	9685.57	527.50 S	36.69 E	525.98	1.69	
9779.00	16.250	166.930	9716.26	536.27 S	38.88 E	534.99	1.88	
9810.00	16.530	168.130	9746.00	544.81 S	40.76 E	543.73	1.42	
9842.00	16.680	167.750	9776.67	553.76 S	42.68 E	552.87	0.58	
9874.00	16.770	167.090	9807.31	562.74 S	44.68 E	562.07	0.66	
9906.00	16.100	167.920	9838.01	571.58 S	46.64 E	571.11	2.22	
9937.00	15.020	170.520	9867.87	579.75 S	48.20 E	579.42	4.15	
9969.00	15.730	169.460	9898.72	588.10 S	49.68 E	587.91	2.39	
10001.00	16.550	167.980	9929.46	596.82 S	51.42 E	596.80	2.87	
10033.00	16.350	168.200	9960.15	605.69 S	53.29 E	605.86	0.65	
10064.00	17.180	166.480	9989.84	614.41 S	55.25 E	614.79	3.12	
10096.00	16.100	166.590	10020.50	623.32 S	57.39 E	623.93	3.38	
10128.00	15.700	167.740	10051.27	631.87 S	59.34 E	632.69	1.59	
10160.00	15.740	166.540	10082.07	640.32 S	61.27 E	641.34	1.02	
10192.00	16.170	165.720	10112.84	648.86 S	63.38 E	650.12	1.52	
10224.00	15.910	166.460	10143.60	657.45 S	65.50 E	658.94	1.03	
10256.00	16.000	165.930	10174.36	665.99 S	67.60 E	667.71	0.54	
10287.00	16.520	163.290	10204.12	674.35 S	69.91 E	676.35	2.91	
10319.00	16.870	162.060	10234.77	683.13 S	72.64 E	685.46	1.55	
10351.00	16.420	161.420	10265.43	691.83 S	75.52 E	694.53	1.52	
10383.00	17.090	161.420	10296.07	700.58 S	78.46 E	703.65	2.09	
10414.00	17.320	161.320	10325.69	709.27 S	81.38 E	712.71	0.75	
10446.00	17.160	161.460	10356.25	718.25 S	84.41 E	722.09	0.52	
10478.00	17.380	161.590	10386.81	727.26 S	87.42 E	731.48	0.70	
10510.00	17.360	162.970	10417.35	736.36 S	90.33 E	740.94	1.29	
10541.00	17.210	162.360	10446.95	745.16 S	93.07 E	750.08	0.76	
10573.00	17.220	164.310	10477.51	754.23 S	95.79 E	759.48	1.80	
10608.00	16.960	163.290	10510.97	764.10 S	98.66 E	769.70	1.13	
10640.00	16.700	164.170	10541.60	773.00 S	101.25 E	778.91	1.14	
10671.00	16.520	163.120	10571.31	781.50 S	103.75 E	787.71	1.13	
10703.00	16.870	162.590	10601.96	790.29 S	106.46 E	796.83	1.19	
10735.00	16.960	163.290	10632.57	799.19 S	109.19 E	806.07	0.70	

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
10766.00	16.610	164.700	10662.25	807.79 S	111.66 E	814.97	1.73	
10798.00	15.690	168.360	10692.99	816.44 S	113.74 E	823.85	4.29	
10830.00	15.640	168.970	10723.80	824.91 S	115.44 E	832.49	0.54	
10862.00	15.200	169.680	10754.65	833.27 S	117.01 E	840.99	1.50	
10893.00	15.520	169.360	10784.54	841.35 S	118.51 E	849.21	1.07	
10925.00	15.640	168.920	10815.37	849.79 S	120.13 E	857.80	0.53	
10957.00	16.170	165.930	10846.14	858.34 S	122.04 E	866.56	3.05	
10988.00	16.610	166.810	10875.88	866.84 S	124.10 E	875.28	1.63	
11020.00	16.350	165.550	10906.57	875.66 S	126.27 E	884.34	1.38	
11052.00	16.520	165.930	10937.26	884.43 S	128.50 E	893.37	0.63	
11084.00	16.000	165.230	10967.98	893.11 S	130.73 E	902.30	1.74	
11116.00	16.000	167.330	10998.74	901.68 S	132.82 E	911.10	1.81	
11147.00	16.260	166.280	11028.52	910.06 S	134.79 E	919.70	1.26	
11179.00	16.700	165.400	11059.20	918.86 S	137.01 E	928.75	1.58	
11211.00	17.050	165.230	11089.83	927.85 S	139.36 E	938.00	1.10	
11242.00	17.050	165.930	11119.46	936.65 S	141.63 E	947.06	0.66	
11271.00	16.420	165.280	11147.24	944.74 S	143.70 E	955.39	2.27	
11303.00	16.440	167.860	11177.93	953.54 S	145.80 E	964.42	2.28	
11334.00	16.350	167.690	11207.67	962.09 S	147.66 E	973.16	0.33	
11366.00	16.870	165.050	11238.33	970.98 S	149.81 E	982.29	2.86	
11398.00	17.750	164.870	11268.88	980.18 S	152.29 E	991.77	2.76	
11430.00	17.930	164.700	11299.35	989.64 S	154.86 E	1001.53	0.59	
11462.00	18.040	164.210	11329.78	999.15 S	157.51 E	1011.36	0.58	
11498.00	18.190	165.400	11364.00	1009.96 S	160.44 E	1022.51	1.11	
11530.00	17.930	165.580	11394.42	1019.56 S	162.93 E	1032.40	0.83	
11562.00	17.930	167.690	11424.87	1029.14 S	165.20 E	1042.23	2.03	
11593.00	17.750	167.690	11454.38	1038.42 S	167.23 E	1051.72	0.58	
11625.00	17.930	169.620	11484.84	1048.03 S	169.15 E	1061.52	1.93	
11657.00	17.580	169.800	11515.31	1057.63 S	170.90 E	1071.27	1.11	
11689.00	17.050	170.150	11545.86	1067.01 S	172.56 E	1080.80	1.69	
11720.00	17.050	171.380	11575.50	1075.98 S	174.01 E	1089.89	1.16	
11752.00	17.230	171.380	11606.08	1085.31 S	175.43 E	1099.31	0.56	
11784.00	16.870	172.080	11636.67	1094.59 S	176.78 E	1108.69	1.29	
11816.00	16.170	174.370	11667.35	1103.63 S	177.85 E	1117.78	2.99	
11847.00	16.350	174.720	11697.11	1112.27 S	178.68 E	1126.43	0.66	
11879.00	16.700	175.240	11727.79	1121.33 S	179.48 E	1135.50	1.19	
11910.00	16.520	174.720	11757.50	1130.16 S	180.25 E	1144.33	0.75	
11942.00	16.960	174.890	11788.14	1139.34 S	181.09 E	1153.52	1.38	
11973.00	16.790	174.190	11817.81	1148.30 S	181.94 E	1162.49	0.85	
12005.00	16.700	174.540	11848.45	1157.47 S	182.85 E	1171.68	0.42	
12036.00	15.910	177.530	11878.20	1166.15 S	183.45 E	1180.34	3.72	
12068.00	15.960	179.820	11908.97	1174.93 S	183.66 E	1189.02	1.97	
12099.00	14.770	183.680	11938.87	1183.14 S	183.42 E	1197.07	5.06	
12130.00	14.940	186.320	11968.83	1191.05 S	182.72 E	1204.74	2.25	
12162.00	14.680	188.780	11999.77	1199.16 S	181.65 E	1212.55	2.13	

Survey Report for Sec. 07-T24S-R26E - CK 7 Federal # 2
Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
TVD (ft)	Northings (ft)	Eastings (ft)						
12194.00	14.590	189.130	12030.73	1207.15 S	180.39 E	1220.20	0.39	
12226.00	14.590	187.550	12061.70	1215.12 S	179.22 E	1227.86	1.24	Last MWD Survey @ 12226' md
12302.00	14.500	187.000	12135.26	1234.06 S	176.81 E	1246.09	0.22	Projection to TD @ 12302' md

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Wellhead and calculated along an Azimuth of 170.124° (Grid).

Coordinate System is NAD27 New Mexico State Planes, Eastern Zone.

Grid Convergence at Surface is 0.003°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 12302.00ft., The Bottom Hole Displacement is 1246.66ft., in the Direction of 171.847° (Grid).

Comments

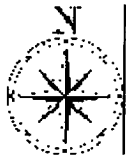
Measured Depth (ft)	Station Coordinates			Comment
TVD (ft)	Northings (ft)	Eastings (ft)		
7700.00	7698.14	92.86 S	67.64 W	Last Gyro Survey @ 7700' md
12226.00	12061.70	1215.12 S	179.22 E	Last MWD Survey @ 12226' md
12302.00	12135.26	1234.06 S	176.81 E	Projection to TD @ 12302' md

HALLIBURTON

Gruy Petroleum Management Co.

DrillQuest
Sperry-Sun

New Mexico
Eddy County
Sec. 07-T24S-R26E
CK 7 Federal # 2



Eastings
Scale: 1 inch = 200ft

0 200 400

0

-200

-400

-600

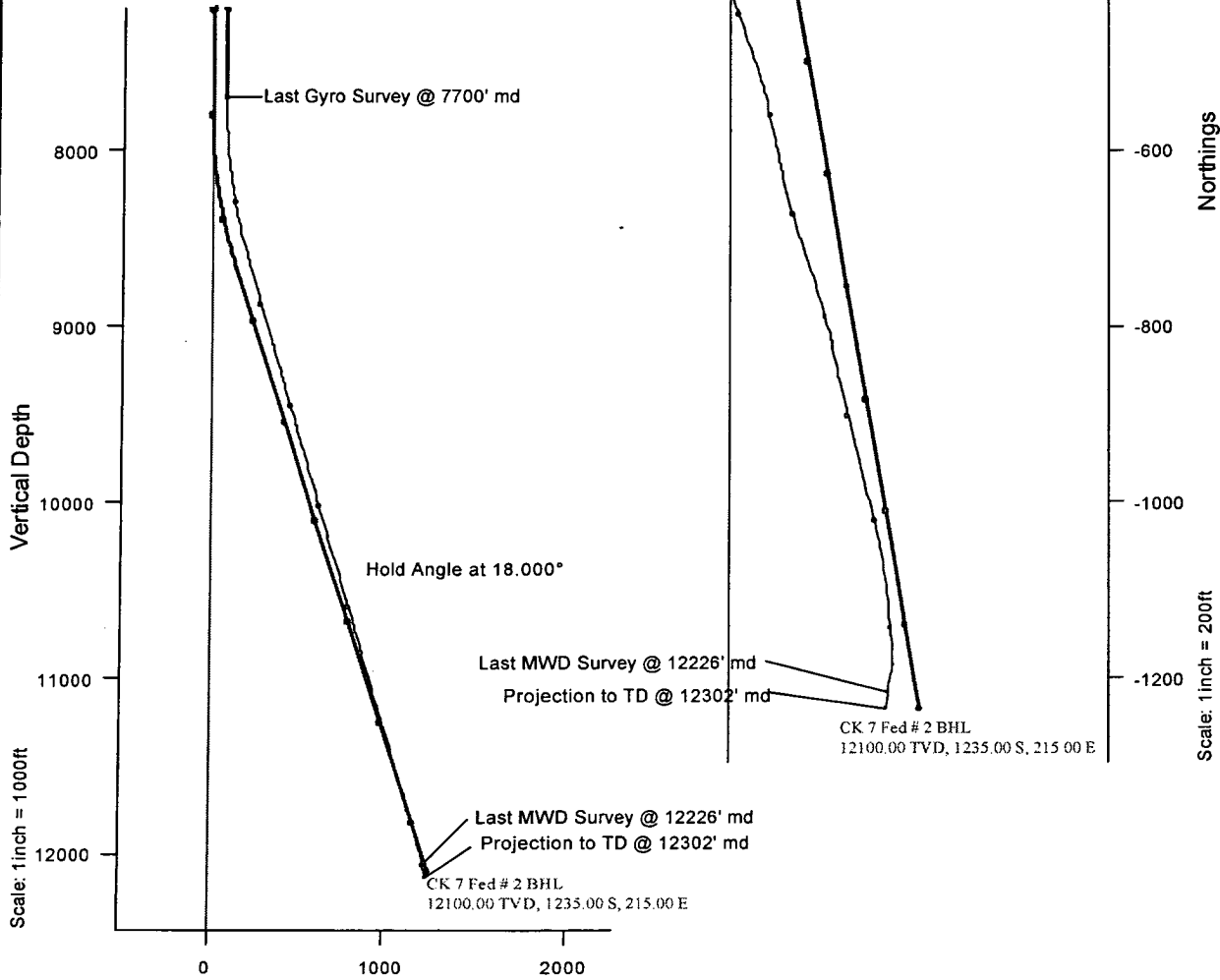
-800

-1000

-1200

Northings

Scale: 1 inch = 200ft



Prepared by:
Admin

Date/Time:
15 June, 2004 - 16:43

Checked:

Approved: