

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*

(Other instructions on
reverse side)FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL

WELL ☒

GAS

WELL ☐

OTHER

SINGLE

ZONE ☐

MULTIPLE

ZONE ☐

2. NAME OF OPERATOR

Merrion Oil & Gas Corporation

3. ADDRESS AND TELEPHONE NO.

610 Reilly Avenue, Farmington, NM 8401-2634

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

At surface

2300' fnl & 1670' fel (SWNE)

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

± 17 miles south of Counselors, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

330'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

550'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6724' GR

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8", J-55	36#	240'±	150 sxs
8-3/4"	7", J-55	23#	6050'±	740 sxs
*5-1/2"	4-1/2"	11.6#	5900'±	

*Horizontal leg

We propose to drill 12-1/4" surface hole to 240 ft. and set 240 ft. of 9-5/8", 36#, J-55 surface casing with 150 sxs Class B (177 cu.ft.) 2% CaCl₂. Will wait on cement 10 hrs, pressure test to 600 psi for 15 minutes. Will drill 8-3/4" hole to 6050 ft. Will run open hole logs. If well appears productive, we will run 6050 ft. of 7", 23#, J-55 casing and cement 1st Stage with 290 sxs (597 cu.ft.) of Class B, 2% Sodium Metasilicate (yield 2.06 cu.ft.), followed by 75 sxs (92 cu.ft.) of Class H with 2% gel (yield 1.22 cu.ft./sx). Will circulate 3-4 hours between stages. Second stage tool in Mancos at ± 2780 ft. Estimated top of cement is at the surface. We will perforate and stimulate as necessary to test the potentially productive intervals. If well appears non-productive, may set 7" between 4800' and 5800' and cement in a similar manner. In that event, plan to drill out horizontally in a north/northeast direction for up to 2000'. A 4-1/2" liner will be set thru the build section at 5900'± (TVD), will cement in place with adequate cement to circulate to liner top inside 7" casing.

Additional details attached.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Steven S. Dunn

TITLE

Operations Manager

DATE

5/8/96

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

MAY 07 1997

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

DATE

MAY 07 1997

*See Instructions On Reverse Side

08-744 (H)

E

NWOOD

I hereby certify that I am a duly authorized representative of the

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Hrazas Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

RECEIVED
MAIL ROOM
MAY - 3 PM 1:09
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 50-031-20985		Pool Code 96713		Pool Name Wildcat 20NEW/3G; ENTARDA CO)	
Property Code 13732		Property Name Chaco Wash			Well Number #2
OGRID No. 014634		Operator Name MERRION OIL & GAS			Elevation 6724'

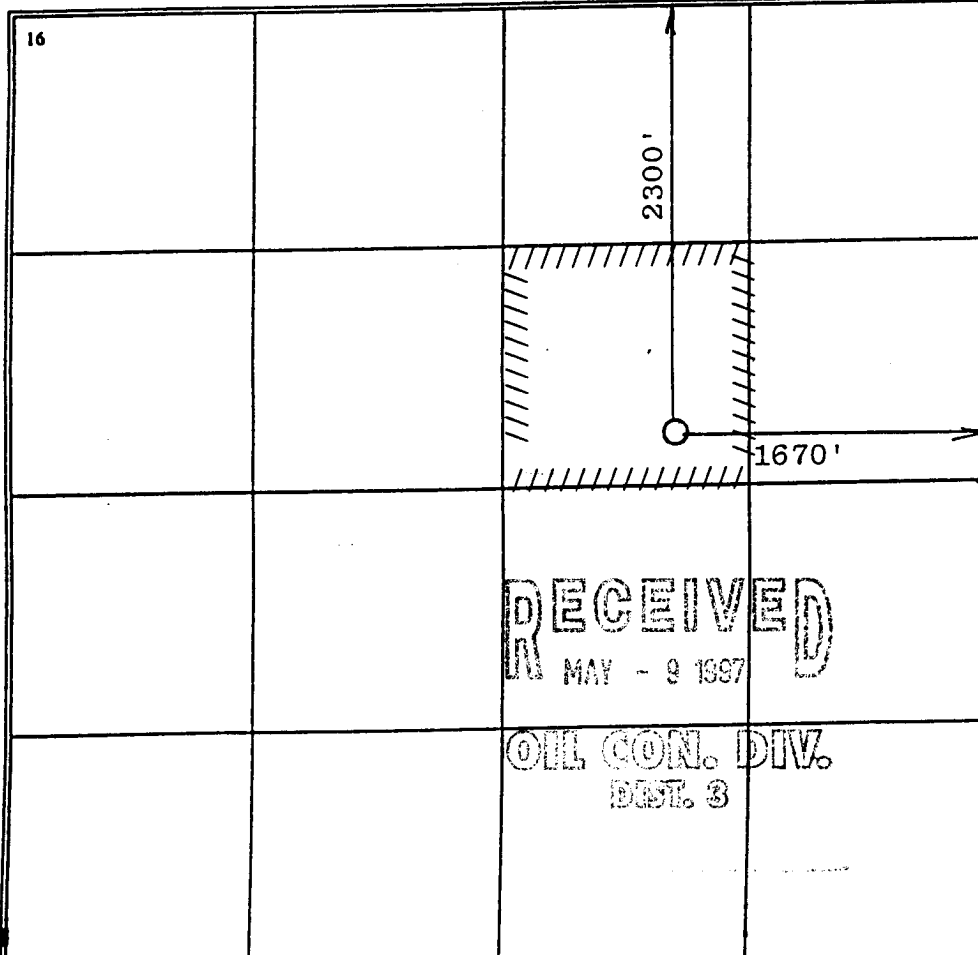
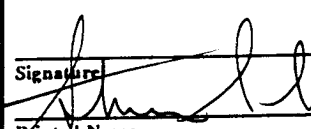
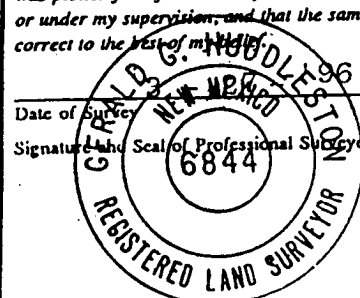
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	13	20 N.	6 W.	SWNE	2300	North	1670	East	McKinley

11 Bottom Hole Location If Different From Surface

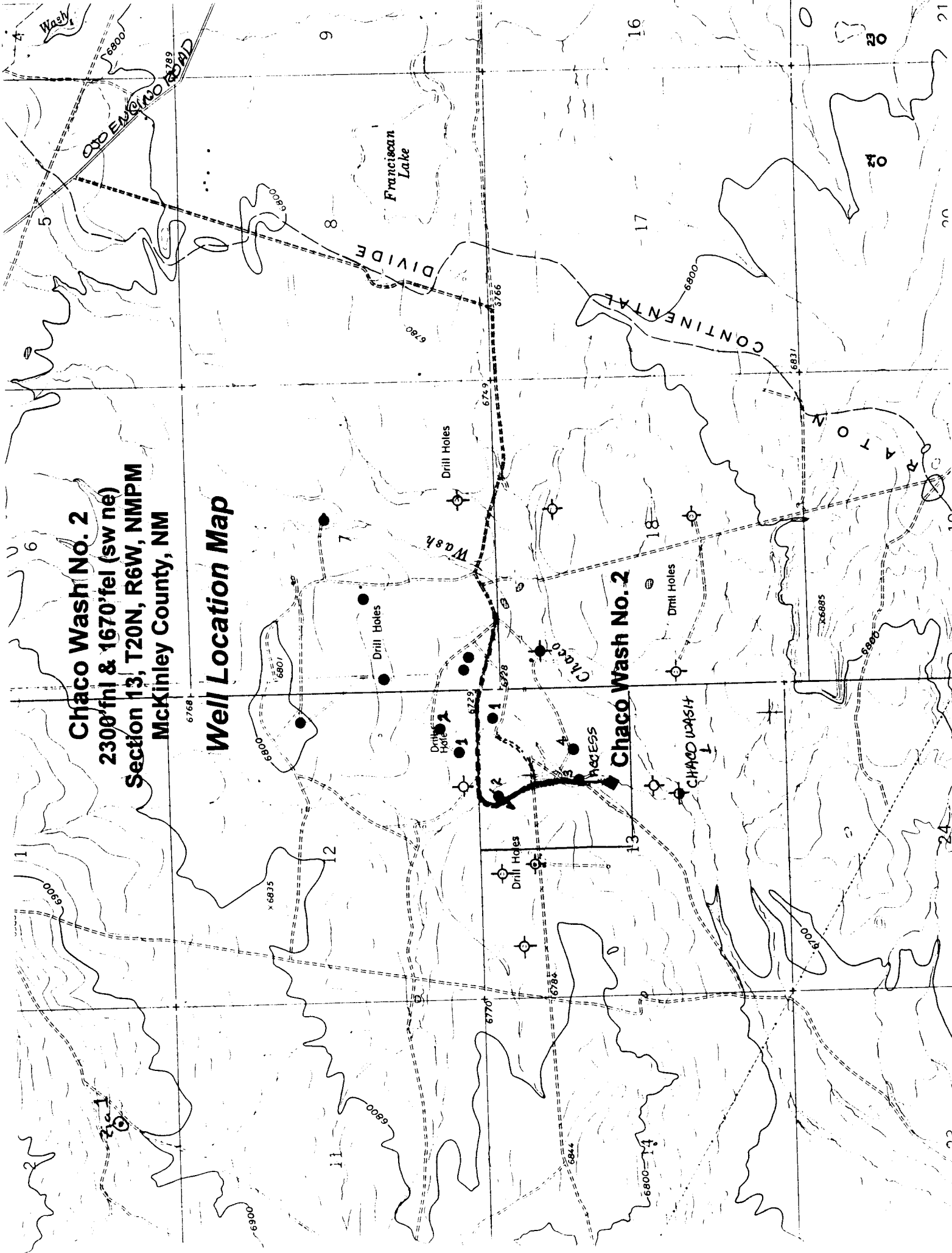
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40		Joint or Infill		Consolidation Code		Order No. DD-144H			

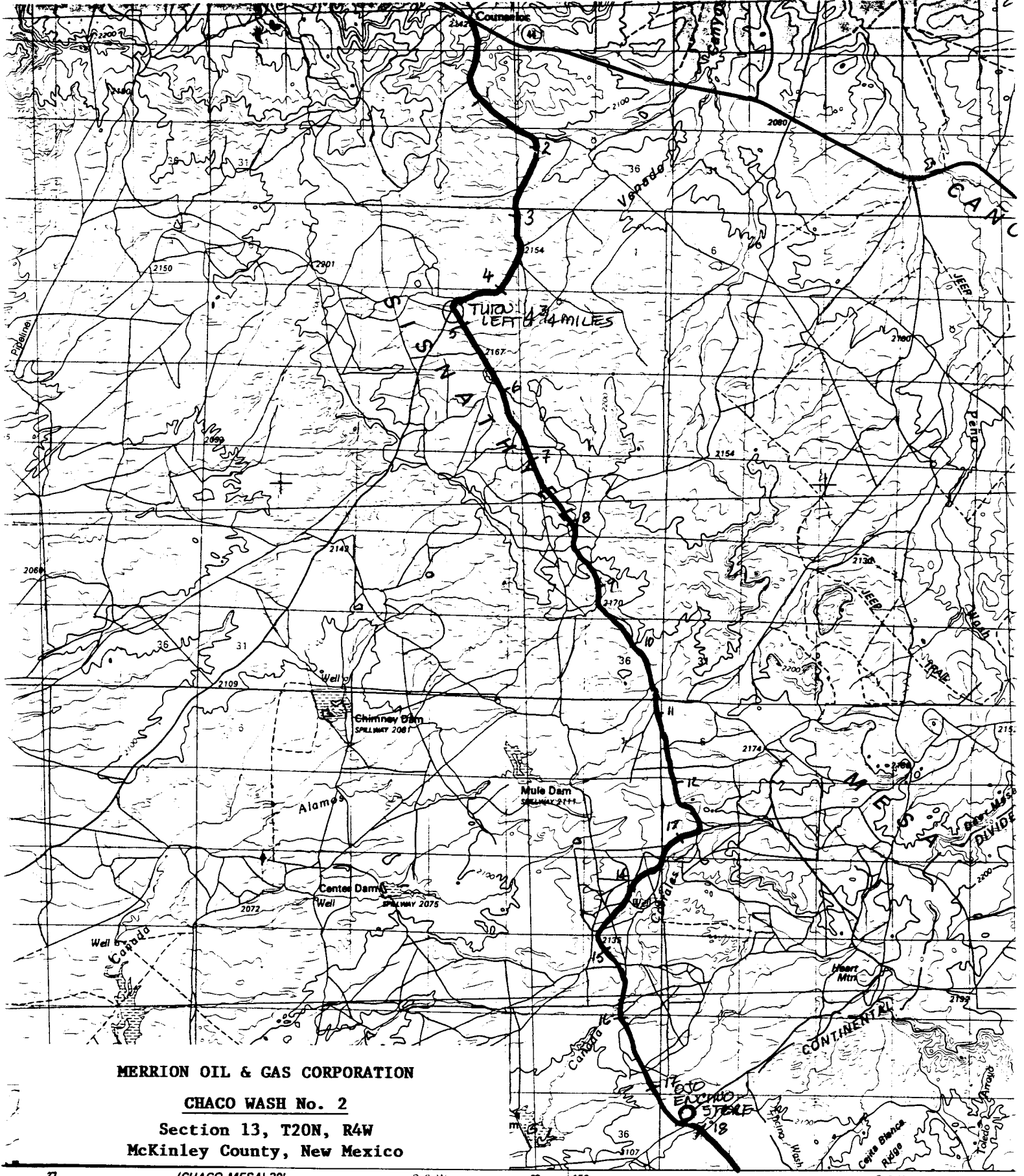
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature:  Printed Name: Steven S. Dunn Title: Operations Manager Date: 5/08/96
	18 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 knowledge Date of Survey: MAY 9 1997 Signature and Seal of Professional Surveyor:  Certificate Number: 6844
	RECEIVED MAY - 9 1997 OIL CON. DIV. DIST. 3

Chaco Wash No. 2
2300'fhl & 1670'fsl (sw ne)
Section 13, T20N, R6W, NMPM
McKinley County, NM

Well Location Map





MERRION OIL & GAS CORPORATION
CHACO WASH No. 2
Section 13, T20N, R4W
McKinley County, New Mexico

SCALE 1:100 000



SANDOVAL CO
MCKINLEY CO

1.4 MILES
TURN RIGHT

CHACO WASH
#2

DIVIDE

CONTINENTAL

Star Lake
Trading Post

Papers
Lake

Wash

Little Blue Mesa

Torreón

Poehne

Penistaja

Sheep Queen Hill

Mesa de San Felipe

Tintán

Landing Strip

Uranium Clean Tank

Vicente

MERRION OIL & GAS CORPORATION

CHACO WASH No. 2

Section 13, T20N, R4W
McKinley County, New Mexico

MCKINLEY CO
SANDOVAL CO

Piñón

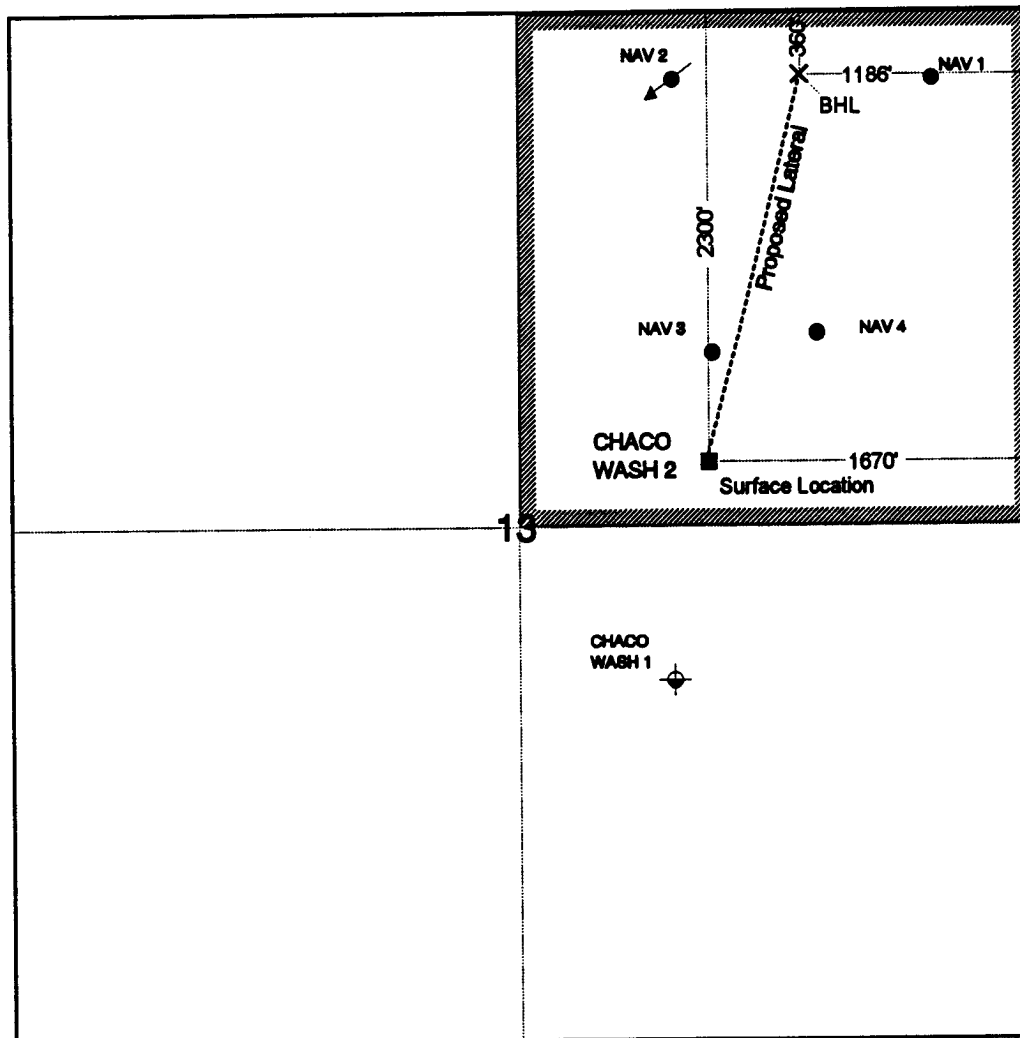
Sandoval

Noberto

Merrion Oil & Gas Corporation
Chaco Wash No. 2
Proposed Directional Plan

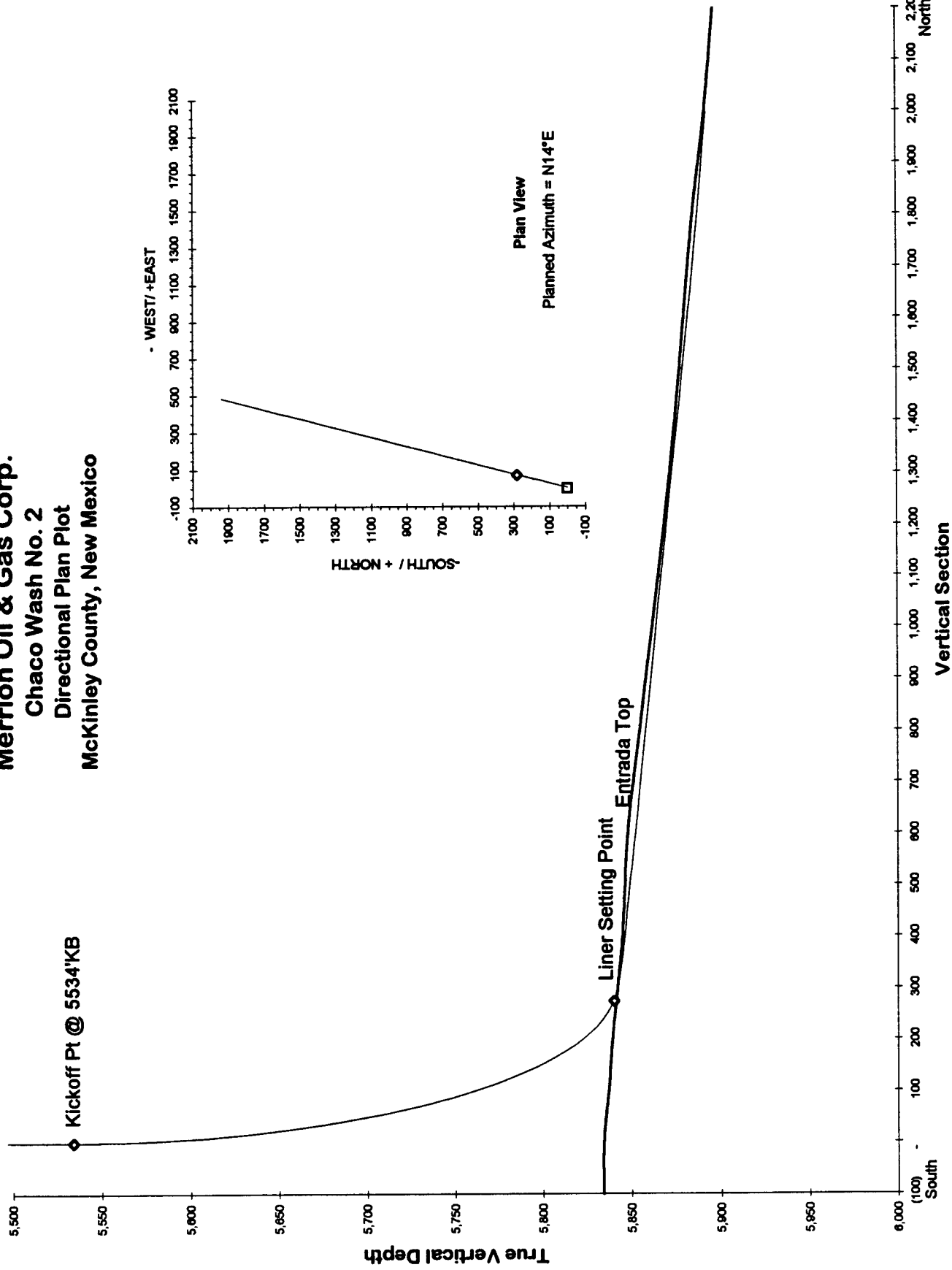
Plan View

Surface Location: 2300'nl & 1670'el (sw ne)
Section 13, T20N, R6W
McKinley Co, New Mexico



SCALE: 1" = 1000'
BY: SSD
DATE: MAY 17, 1996

Merrion Oil & Gas Corp.
Chaco Wash No. 2
Directional Plan Plot
McKinley County, New Mexico



Surveys

DIRECTIONAL SURVEY DATA

WELL NAME: Chaco Wash #2				LOCATION: McKinley				RIG:			
TARGET AZIMUTH (0-360 DEG):				14.00				New Mexico			
								ELEV: 6,737 RKB			
NO.	MEAS DEPTH (FT.)	HOLE ANGLE (DEG)	HOLE AZIMUTH (0-360D)	TRUE VERTICAL DEPTH (FT.)	LAT +NORTH -SOUTH (FT.)	DEP +EAST -WEST (FT.)	CLOSURE (FT.)	TRUE SECTION (FT.)	DOGLE SEVERITY (°/100')	+BUILD -DROP RATE (°/100')	WALK RATE +R/L (°/100')
1	-	-	-	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A
2	100	0.00	14.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00
3	200	0.00	14.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	300	0.00	14.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	400	0.00	14.00	400.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
6	500	0.00	14.00	500.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
7	600	0.00	14.00	600.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
8	700	0.00	14.00	700.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
9	800	0.00	14.00	800.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
10	900	0.00	14.00	900.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00
11	1,000	0.00	14.00	1,000.00	0.02	0.00	0.02	0.02	0.00	0.00	0.00
12	1,100	0.00	14.00	1,100.00	0.02	0.00	0.02	0.02	0.00	0.00	0.00
13	1,200	0.00	14.00	1,200.00	0.02	0.00	0.02	0.02	0.00	0.00	0.00
14	1,300	0.00	14.00	1,300.00	0.02	0.01	0.02	0.02	0.00	0.00	0.00
15	1,400	0.00	14.00	1,400.00	0.02	0.01	0.02	0.02	0.00	0.00	0.00
16	1,500	0.00	14.00	1,500.00	0.02	0.01	0.03	0.03	0.00	0.00	0.00
17	1,600	0.00	14.00	1,600.00	0.03	0.01	0.03	0.03	0.00	0.00	0.00
18	1,700	0.00	14.00	1,700.00	0.03	0.01	0.03	0.03	0.00	0.00	0.00
19	1,800	0.00	14.00	1,800.00	0.03	0.01	0.03	0.03	0.00	0.00	0.00
20	1,900	0.00	14.00	1,900.00	0.03	0.01	0.03	0.03	0.00	0.00	0.00
21	2,000	0.00	14.00	2,000.00	0.03	0.01	0.03	0.03	0.00	0.00	0.00
22	2,100	0.00	14.00	2,100.00	0.03	0.01	0.04	0.04	0.00	0.00	0.00
23	2,200	0.00	14.00	2,200.00	0.04	0.01	0.04	0.04	0.00	0.00	0.00
24	2,300	0.00	14.00	2,300.00	0.04	0.01	0.04	0.04	0.00	0.00	0.00
25	2,400	0.00	14.00	2,400.00	0.04	0.01	0.04	0.04	0.00	0.00	0.00
26	2,500	0.00	14.00	2,500.00	0.04	0.01	0.04	0.04	0.00	0.00	0.00
27	2,600	0.00	14.00	2,600.00	0.04	0.01	0.04	0.04	0.00	0.00	0.00
28	2,700	0.00	14.00	2,700.00	0.04	0.01	0.05	0.05	0.00	0.00	0.00
29	2,800	0.00	14.00	2,800.00	0.05	0.01	0.05	0.05	0.00	0.00	0.00
30	2,900	0.00	14.00	2,900.00	0.05	0.01	0.05	0.05	0.00	0.00	0.00
31	3,000	0.00	14.00	3,000.00	0.05	0.01	0.05	0.05	0.00	0.00	0.00
32	3,100	0.00	14.00	3,100.00	0.05	0.01	0.05	0.05	0.00	0.00	0.00
33	3,200	0.00	14.00	3,200.00	0.05	0.01	0.05	0.05	0.00	0.00	0.00
34	3,300	0.00	14.00	3,300.00	0.06	0.01	0.06	0.06	0.00	0.00	0.00
35	3,400	0.00	14.00	3,400.00	0.06	0.01	0.06	0.06	0.00	0.00	0.00
36	3,500	0.00	14.00	3,500.00	0.06	0.01	0.06	0.06	0.00	0.00	0.00
37	3,600	0.00	14.00	3,600.00	0.06	0.01	0.06	0.06	0.00	0.00	0.00
38	3,700	0.00	14.00	3,700.00	0.06	0.02	0.06	0.06	0.00	0.00	0.00
39	3,800	0.00	14.00	3,800.00	0.06	0.02	0.07	0.07	0.00	0.00	0.00
40	3,900	0.00	14.00	3,900.00	0.07	0.02	0.07	0.07	0.00	0.00	0.00
41	4,000	0.00	14.00	4,000.00	0.07	0.02	0.07	0.07	0.00	0.00	0.00
42	4,100	0.00	14.00	4,100.00	0.07	0.02	0.07	0.07	0.00	0.00	0.00
43	4,200	0.00	14.00	4,200.00	0.07	0.02	0.07	0.07	0.00	0.00	0.00
44	4,300	0.00	14.00	4,300.00	0.07	0.02	0.07	0.07	0.00	0.00	0.00
45	4,400	0.00	14.00	4,400.00	0.07	0.02	0.08	0.08	0.00	0.00	0.00
46	4,500	0.00	14.00	4,500.00	0.08	0.02	0.08	0.08	0.00	0.00	0.00
47	4,600	0.00	14.00	4,600.00	0.08	0.02	0.08	0.08	0.00	0.00	0.00

DIRECTIONAL SURVEY DATA

WELL NAME: Chaco Wash #2				LOCATION: McKinley				RIG:			
TARGET AZIMUTH (0-360 DEG):				14.00				New Mexico			
								ELEV: 6,737 RKB			
	MEAS	HOLE	HOLE	TRUE	LAT	DEP		TRUE		+BUILD	WALK
	DEPTH	ANGLE	AZIMUTH	VERTICAL	+NORTH	+EAST		VERTICAL	DOGLE	-DROP	RATE
NO.	(FT.)	(DEG)	(0-360D)	(FT.)	-SOUTH	-WEST	CLOSURE	(FT.)	SEVERITY	RATE	+R/-L
					(FT.)	(FT.)	(FT.)		(°/100')	(°/100')	(°/100')
48	4,700	0.00	14.00	4,700.00	0.08	0.02	0.08	0.08	0.00	0.00	0.00
49	4,800	0.00	14.00	4,800.00	0.08	0.02	0.08	0.08	0.00	0.00	0.00
50	4,900	0.00	14.00	4,900.00	0.08	0.02	0.08	0.08	0.00	0.00	0.00
51	5,000	0.00	14.00	5,000.00	0.08	0.02	0.09	0.09	0.00	0.00	0.00
52	5,100	0.00	14.00	5,100.00	0.09	0.02	0.09	0.09	0.00	0.00	0.00
53	5,200	0.00	14.00	5,200.00	0.09	0.02	0.09	0.09	0.00	0.00	0.00
54	5,300	0.00	14.00	5,300.00	0.09	0.02	0.09	0.09	0.00	0.00	0.00
55	5,400	0.00	14.00	5,400.00	0.09	0.02	0.09	0.09	0.00	0.00	0.00
56	5,500	0.00	14.00	5,500.00	0.09	0.02	0.10	0.10	0.00	0.00	0.00
57	5,534	0.00	14.00	5,534.00	0.09	0.02	0.10	0.10	0.00	0.00	0.00
58	5,584	9.30	14.00	5,583.78	4.02	1.00	4.15	4.15	18.60	18.60	0.00
59	5,634	18.60	14.00	5,632.25	15.70	3.92	16.19	16.19	18.60	18.60	0.00
60	5,684	27.90	14.00	5,678.14	34.83	8.89	35.90	35.90	18.60	18.60	0.00
61	5,734	37.20	14.00	5,720.24	60.91	15.19	62.77	62.77	18.60	18.60	0.00
62	5,784	46.50	14.00	5,757.45	93.24	23.25	96.10	96.10	18.60	18.60	0.00
63	5,834	55.80	14.00	5,788.78	130.98	32.66	134.99	134.99	18.60	18.60	0.00
64	5,884	65.10	14.00	5,813.41	173.14	43.17	178.44	178.44	18.60	18.60	0.00
65	5,934	74.40	14.00	5,830.69	218.61	54.50	225.30	225.30	18.60	18.60	0.00
66	5,984	83.70	14.00	5,840.18	286.19	66.37	274.34	274.34	18.60	18.60	0.00
67	6,000	86.68	14.00	5,841.52	281.65	70.22	290.28	290.28	18.60	18.60	0.00
68	6,050	87.48	14.00	5,844.07	330.11	82.30	340.21	340.21	1.60	1.60	0.00
69	6,100	88.28	14.00	5,845.93	378.59	94.39	390.18	390.18	1.60	1.60	0.00
70	6,165	88.28	14.00	5,847.88	441.63	110.11	455.15	455.15	0.00	0.00	0.00
71	6,200	88.28	14.00	5,848.94	475.57	118.57	490.13	490.13	0.00	0.00	0.00
72	6,300	88.28	14.00	5,851.94	572.58	142.75	590.09	590.09	0.00	0.00	0.00
73	6,400	88.28	14.00	5,854.95	669.54	166.94	690.04	690.04	0.00	0.00	0.00
74	6,500	88.28	14.00	5,857.96	766.53	191.12	790.00	790.00	0.00	0.00	0.00
75	6,600	88.28	14.00	5,860.97	863.52	215.30	889.95	889.95	0.00	0.00	0.00
76	6,700	88.28	14.00	5,863.98	960.50	239.48	989.91	989.91	0.00	0.00	0.00
77	6,800	88.28	14.00	5,866.99	1,057.49	263.66	1,089.86	1,089.86	0.00	0.00	0.00
78	6,900	88.28	14.00	5,870.00	1,154.47	287.84	1,189.81	1,189.81	0.00	0.00	0.00
79	7,000	88.28	14.00	5,873.00	1,251.46	312.02	1,289.77	1,289.77	0.00	0.00	0.00
80	7,100	88.28	14.00	5,876.01	1,348.44	336.20	1,389.72	1,389.72	0.00	0.00	0.00
81	7,200	88.28	14.00	5,879.02	1,445.43	360.39	1,489.68	1,489.68	0.00	0.00	0.00
82	7,300	88.28	14.00	5,882.03	1,542.41	384.57	1,589.63	1,589.63	0.00	0.00	0.00
83	7,400	88.38	14.00	5,884.95	1,639.40	408.75	1,689.59	1,689.59	0.00	0.10	0.00
84	7,710	88.69	14.00	5,892.90	1,940.10	483.72	1,999.49	1,999.49	0.10	0.10	0.00