

OK
E



Wintershall Oil and Gas Corporation
P.O. Box 23
Towaoc, Colorado 81334

Wintershall
Oil and Gas Corporation
Towaoc, Colorado

Attached are the computations for TVD and horizontal displacement. As no thickening of formations was encountered it is felt that the wellbore deviated up dip which is N22 1/2 W.

Maximum bottom hole displacement is calculated to be 808.90 feet. Using a N22 1/2 W direction the bottomhole location would be 896' FNL and 1239' FWL Unit D; Sec 27; T31N; R14W; San Juan County, New Mexico.

RECEIVED
OCT 10 1984
C. H. WINTERSHALL

F-27-31N-14W

227
42E

UTE MOUNTAIN UTE 27-22R

The following is a tabualtion of all deviations surveys ran on the Ute Mountain Ute 27-22R well. 42E 227
The well is located Unit F, 1643' FNL and 1540' FWL Sec 27; T31N; R14W; San Juan County, New Mexico. 5 60

Depth (Ft)	Deviation	Depth	Deviation
30	1/2	2485	8
60	2 1/2	2579	7 1/2
87	3	2640	7 1/2
118	3 1/4	2694	9 3/4
138	2 3/4	2767	10 1/4
270	2 3/4	2818	11 1/2
313	2 1/2	2890	12
402	3	2950	12
490	3	3003	11 3/4
610	3 1/2	3064	11 3/4
730	4 1/2		
800	4 1/2	3125	12 1/4
862	4 3/4	3185	12 3/4
918	4 3/4	3246	13 1/4
950	5	3308	12 3/4
1003	5	3408	13 1/4
1064	5 1/4	3489	14
1107	5	3578	16
1194	5 1/4	3680	17 1/2
1284	5 1/2	3763	19 1/2
1374	5 3/4	3824	20 3/4
1561	5 3/4	3885	21
1650	6	4066	21
1744	6 1/4	4159	20 1/2
1838	6 1/4	4229	20
1927	6 1/2	4311	19 3/4
2020	6 1/2	4414	20
2114	7	4496	21
2176	7	4619	21 1/2
2268	6 1/2	4656	21 1/2
2363	7		
2415	7 1/2		

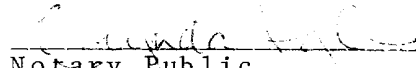
I, Fred J. Clausen, Area Superintendent for Wintershall Corporation, do here by attest that I inspected the above surveys and found the same to be accurate, valid and complete to the best of my knowledge.


Fred J. Clausen
Area Superintendent

State of Colorado

County of Montezuma

Subscribed and sworn to me this 6th day of March, 1989


Notary Public

My Commission Expires: 06/01/91

RECEIVED
MAR 07 1989
OIL CON. DIV
DIST 2

UTE MTN UTE 27-22^{42E}~~48~~

DEPTH	DEVIATION	Δ DISTANCE	AVE DEVIATION	TUD	HORIZONTAL DIA.
30	1/2	30	1/4	30	.13
60	2 1/2	30	1 1/2	29.99	.79
87	3	27	2 3/4	26.97	1.30
118	3 1/4	31	3 1/8	30.95	1.69
138	2 3/4	20	3	19.97	1.05
270	2 3/4	132	2 3/4	131.85	6.33
313	2 1/2	43	2 5/8	42.95	1.97
402	3	89	2 3/4	88.90	4.27
490	3	88	3	87.88	4.61
610	3 1/2	120	3 1/4	119.81	6.80
730	4 1/2	120	4	119.71	8.37
800	4 1/2	70	4 1/2	69.78	5.49
862	4 3/4	62	4 5/8	61.80	5.00
918	4 3/4	56	4 3/4	55.81	4.64
950	5	32	4 7/8	31.88	2.72
1003	5	53	5	52.80	4.62
1064	5 1/4	61	5 1/8	190.24	17.06
1107	5	43 ¹⁴¹	5 1/8		
1194	5 1/4	87	5 1/8		
1284	5 1/2	90	5 3/8	89.60	8.43
1374	5 3/4	90	5 5/8	89.57	8.82
1561	5 3/4	187	5 3/4	186.06	18.74
1650	6	89	5 7/8	88.53	9.11
1744	6 1/4	94	6 1/8	93.46	10.03
1838	6 1/4	94	6 1/4	93.44	10.23
1927	6 1/2	89	6 3/8	88.45	9.88
2020	6 1/2	93	6 1/2	92.40	10.53
2114	7	94	6 3/4	93.35	11.05
2176	7	62	7	61.54	7.56
2268	6 1/2	92	6 3/4	185.70	21.98
2363	7	95 ¹⁸⁷	6 3/4		
2415	7 1/2	52	7 1/4	51.58	6.56
2485	8	70	7 3/4	69.36	9.44
				2474.33	219.20

RECEIVED

MAR 07 1989

OIL CON. DIV

UNIT 2

DEPTH	DEVIATION	Δ DISTANCE	AVE DEVIATION	TVD	HORIZONTAL DISP
2579	7 1/2	94	7 3/4	93.14	12.68
2640	7 1/2	61	7 1/2	60.48	7.96
2694	9 3/4	54	8.625	53.39	8.10
2767	10 1/4	73	10	71.89	12.68
2818	11 1/2	51	10.875	50.08	9.62
2890	12	72	11.75	70.49	14.66
2950	12	60	12	58.69	12.47
3003	11 3/4	53	11.875	51.87	10.91
3064	11 3/4	61	11.75	59.72	12.42
3125	12 1/4	61	12	59.67	12.68
3185	12 3/4	60	12.5	58.58	12.99
3246	13 1/4	61	13	217.28	50.16
3308	12 3/4	62	13		
3408	13 1/4	100	13		
3489	14	81	13.625	78.72	19.08
3578	16	89	15	85.97	23.03
3680	17 1/2	102	16 3/4	97.67	29.40
3763	19 1/2	83	18 1/2	78.71	26.34
3824	20 3/4	61	20.125	57.28	20.99
3885	21	61	20.875	57.00	21.74
4066	21	181	21	168.98	64.86
4159	20 1/2	93	20 3/4	86.97	32.95
4229	20	70	20 1/4	65.67	24.23
4311	19 3/4	82	19.875	173.98	62.89
4414	20	103	19.875		
4496	21°	82	20.5	76.81	28.72
4619	21 1/2°	123'	21.25°	114.64	44.58
4656	21 1/2°	37	21 1/2	34.43	13.56
				2082.11	808.90 F

DAKOTA TOP 4366'

Max Displacement @ TOP 705.73'

1643' FNL & 1549' FWL

N 22 1/2° W

1) 4385.42 @ TOP OF DAKOTA

991' FNL & 1279' FWL

2) 4556.44 AT TD

896' FNL 1239' FWL