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MANAGEMENT SECTOR

UNION OIL COMPANY OF CALIFORNIA FEWD DIRECTIONAL SURVEY REPORT OCS-G-21245 #1 WALKER RIDGE BLOCK 678 / OFFSHORE, LA. RIG: DISCOVERER SPIRIT API # 60-812-40004 SEPTEMBER 18 – NOVEMBER 20, 2000 LAMM01318

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SPERRY-SUN DRILLING SERVICES FEWD DIRECTIONAL SURVEY REPORT WALKER RIDGE BLOCK 678 / OFFSHORE LOUISIANA RIG: DISCOVERER SPIRIT API # 60-812-40004

UNION OIL COMPANY OF CALIFORNIA OCS-G-21245 #1

NOVEMBER 23, 2000 LA-MM-01318

MEASURED	ANGLE	DIRECTION	VERTICAL	LATITUDE	DEPARTURE	VERTICAL	DOG
DEPTH	DEG	DEG	DEPTH	FEET	FEET	SECTION	LEG
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7485.00	0.00	0.00	7485.00	0.00	0.00	0.00	0.00
7713.00	0.49	14.65	7713.00	0.94 N	0.25 E	-0.65	0.21
7849.00	0.65	3.94	7848.99	2.28 N	0.45 E	-1.66	0.14
8032.00	1.58	321.28	8031.96	5.28 N	1.06 W	-5.00	0.65
8119.00	1.84	324.23	8118.92	7.35 N	2.63 W	-7.58	0.32
8254.00	1.82	330.15	8253.85	10.97 N	4.96 W	-11.89	0.14
8386.00	2.07	330.37	8385.77	14.86 N	7.18 W	-16.36	0.19
8519.00	2.18	331.78	8518.68	19.17 N	9.57 W	-21.28	0.09
8768.00	1.71	2.66	8767.54	27.06 N	11.63 W	-29.00	0.45
8933.00	1.88	336.35	8932.47	32.00 N	12.60 W	-33.67	0.51
9340.00	0.88	334.95	9339.34	40.94 N	16.61 W	-43.34	0.25
9743.00	0.16	85.27	9742.33	43.79 N	17.36 W	-46.13	0.24
10153.00	1.50	132.86	10152.28	40.19 N	12.85 W	-40.65	0.34
10555.00	2.51	133.13	10554.02	30.59 N	2.57 W	-26.99	0.25
11143.00	3.22	127.27	11141.29	11.79 N	19.97 E	1.10	0.13
11812.00	3.56	134.33	11809.12	14.10 S	49.78 E	39.11	0.08
12086.00	4.09	138.99	12082.51	27.42 S	62.28 E	57.10	0.22
12221.00	4.41	140.49	12217.14	35.06 S	68.74 E	67.03	0.25
12634.00	4.60	144.80	12628.86	60.84 S	88.38 E	99.36	0.09
12902.00	4.58	146.13	12896.00	78.51 S	100.54 E	120.81	0.04
13038.00	4.97	147.52	13031.53	87.98 S	106.73 E	132.13	0.30
13170.00	4.81	146.04	13163.05	97.40 S	112.89 E	143.38	0.15
13307.00	4.90	146.99	13299.56	107.07 S	119.29 E	154.97	0.09
13447.00	4.78	145.82	13439.06	116.91 S	125.82 E	166.78	0.11
13588.00	4.76	145.70	13579.57	126.60 S	132.42 E	178.51	0.02
13719.00	4.67	144.80	13710.13	135.45 S	138.56 E	189.27	0.09
13853.00	5.01	146.63	13843.65	144.79 S	144.92 E	200.57	0.28
13993.00	4.97	147.98	13983.12	155.04 S	151.50 E	212.75	0.09
14129.00	5.17	147.76	14118.59	165.22 S	157.89 E	224.77	0.15
14263.00 14399.00 14535.00 14675.00 14810.00	5.45 5.56 5.57 5.78 5.98	148.73 147.36 149.74 148.59 148.05	14252.01 14387.38 14522.74 14662.06 14796.35	175.76 S 186.83 S 198.08 S 209.97 S 221.73 S	164.42 E 171.32 E 178.20 E 185.30 E 192.56 E	237.16 250.20 263.38 277.21 291.04	0.22 0.13 0.17 0.17

SPERRY-SUN DRILLING SERVICES FEWD DIRECTIONAL SURVEY REPORT WALKER RIDGE BLOCK 678 / OFFSHORE LOUISIANA RIG: DISCOVERER SPIRIT API # 60-812-40004

UNION OIL COMPANY OF CALIFORNIA OCS-G-21245 #1

NOVEMBER 23, 2000 LA-MM-01318

MEASURED	ANGLE	DIRECTION	VERTICAL	LATITUDE	DEDNDMino	VEDMICAT	DOC
DEPTH	DEG	DEG	DEPTH	FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
00	5-4				. 201	BECTTON	DLC
14944.00	6.19	147.21	14929.59	233.73 S	200.17 E	305.24	0.17
15080.00	6.51	146.86	15064.76	246.35 S	208.36 E	320.28	0.24
15217.00	6.56	147.37	15200.87	259.44 S	216.82 E	335.87	0.06
15356.00	6.64	147.77	15338.95	272.93 S	225.39 E	351.85	0.07
15489.00	6.47	146.20	15471.08	285.66 S	233.66 E	367.03	0.19
15623.00	6.78	143.68	15604.18	298.31 S	242.54 E	382.48	0.32
15779.00	6.41	142.25	15759.15	312.61 S	253.33 E	400.35	0.26
15915.00	6.32	140.95	15894.31	324.43 S	262.69 E	415.37	0.12
16054.00	6.06	141.78	16032.50	336.13 S	272.05 E	430.29	0.20
16193.00	6.03	144.04	16170.73	347.81 S	280.88 E	444.90	0.17
16330.00	5.65	144.73	16307.02	359.14 S	289.00 E	458.82	0.28
16467.00	5.56	142.88	16443.36	369.94 S	296.90 E	472.19	0.15
16592.00	5.59	143.50	16567.77	379.66 S	304.17 E	484.31	0.05
16733.00	5.64	143.78	16708.09	390.77 S	312.35 E	498.08	0.04
16856.00	5.90	143.93	16830.47	400.75 S	319.64 E	510.43	0.21
17012.00	6.09	143.63	16985.62	413.90 S	329.27 E	526.70	0.12
17145.00	5.62	148.90	17117.92	425.16 S	336.82 E	540.26	0.54
17284.00	5.35	151.87	17256.29	436.70 S	343.39 E	553.51	0.28
17421.00	5.04	154.16	17392.73	447.75 S	349.02 E	565.84	0.27
17560.00	4.80	157.47	17531.21	458.61 S	353.91 E	577.61	0.27
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17687.00	4.42	161.05	17657.80	468.15 S	357.54 E	587.57	0.38
17820.00	4.02	162.93	17790.44	477.45 S	360.57 E	597.01	0.32
17952.00	3.92	164.26	17922.12	486.22 S	363.15 E	605.76	0.10
18096.00	3.57	170.02	18065.82	495.37 S	365.27 E	614.57	0.36
18385.00	3.41	167.41	18354.28	512.62 S	368.70 E	630.87	0.08
18522.00	3.28	161.99	18491.05	520.33 S	370.80 E	638.46	0.25
18658.00	3.21	157.18	18626.83	527.54 S	373.48 E	645.96	0.21
18794.00	3.06	152.98	18762.63	534.28 S	376.60 E	653.31	0.20
18927.00	3.01	156.82	18895.44	540.65 S	379.59 E	660.28	0.16
19064.00	3.22	161.42	19032.24	547.61 S	382.23 E	667.54	0.24
19201.00	3.23	162.71	19169.02	554.94 S	384.61 E	674.97	0.05
19339.00	3.60	161.93	19306.78	562.77 S	387.11 E	682.89	0.27
19475.00	3.41	161.03	19442.52	570.65 S	389.75 E	690.93	0.15
19611.00	3.30	157.21	19578.29	578.09 S	392.58 E	698.70	0.18
19747.00	3.27	158.02	19714.07	585.29 S	395.54 E	706.35	0.04

SPERRY-SUN DRILLING SERVICES FEWD DIRECTIONAL SURVEY REPORT WALKER RIDGE BLOCK 678 / OFFSHORE LOUISIANA RIG: DISCOVERER SPIRIT

API # 60-812-40004

UNION OIL COMPANY OF CALIFORNIA OCS-G-21245 #1

NOVEMBER 23, 2000 LA-MM-01318

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
19882.00	3.65	160.54	19848.82	592.91 S	398.42 E	714.30	0.30
20163.00	3.99	163.39	20129.19	610.72 S	404.19 E	732.35	0.14
20300.00	3.99	163.39	20265.86	619.85 S	406.92 E	741.48	0.00

THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET THE VERTICAL SECTION WAS COMPUTED ALONG 146.72° (GRID)

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE DISPLACEMENT IS 741.48 FEET, IN THE DIRECTION OF 146.72° (GRID)

SURVEYS CALCULATED USING SHORT COLLAR METHOD. TOTAL MAGNETIC FIELD STRENGTH = 46929 nT

MAGNETIC DIP ANGLE = 56.579°

A TOTAL CORRECTION OF 1.277 $^{\circ}$ EAST HAS BEEN APPLIED FROM MAGNETIC NORTH TO GRID NORTH.

(UTM NAD 27 ZONE 15)

ASSUMED VERTICAL TO 7485' MD.

SURVEYS FROM 7713' MD TO 20163' MD PROVIDED BY SPERRY-SUN FEWD. THE SURVEY AT 20163' MD HAS BEEN PROJECTED TO TD AT 20300' MD.

SPERRY-SUN ENGINEERS: R. MENEFEE, L. SMITH, M. ANDERSON, J. LITWINOWICZ, A. CASTRO, R. HOLMES.

Union Oil Co. Of California 14141 Southwest Freeway Sugarland, TX 77478



Transmittal Form For MMS Required Data

Lease &	Date: Well No. Field API No.	2/7/2001 OCS-G 21245 Well 1 (Dana Pt #1 - Original Hole Walker Ridge 60-812-40004-00
	Minerals Ma District Office	nagement Service ce
		Form MMS-124 Sundry Notice, Well Schematic, in triplicate w/ public information copy Form MMS-125, Well Schematic, in duplicate w/ public infor. Copy Item 77of Well Summary Attachment Other
A	Technical Da 1201 Elmwo	nagement Service ata Management Section (MS 5020) od Park Blvd. s, LA 70123-2394 One hard copy of logs Hard copy of survey
	Q. C. DATA,	Floppy disk Core Analysis Item 77of Well Summary Attachment Other Paleo Data Survey PAT Inc.
	777 Post Oa Houston, TX	k Rd. Ste 900 77056
		One set logs (hard copy) (Dipmeter, Structural, Oil Based) Digital tape of logs Item 77of Well Summary Attachment

If you have any questions, please call Ray Nemetz @ 281-287-7118

MAILED Ray Remoor

