THEVENARD ISLAND - SUMMARY OF MAJOR CUTS

	Whole Crude	Light Naphtha	Medium Naphtha	Heavy Naphtha	Kero	Atm Gas Oil	Light VGO	Heavy VGO	Vacuum Resid	Atm Resid
TBP Temp At Start, °C	Start	10	80	150	200	260	340	450	570	340
TBP Temp At End, °C	End	80	150	200	260	340	450	570	End	End
TBP Temp At Start, °F	Start	55	175	300	400	500	650	850	1050	650
TBP Temp At End, °F	End	175	300	400	500	650	850	1050	End	End
Yield at Start, vol%		1.7	6.5	23.4	40.4	62.8	85.0	95.1	99.6	85.0
Yield at End, vol%		6.5	23.4	40.4	62.8	85.0	95.1	99.6	100.0	100.0
Yield of Cut (wt% of Crude)		3.9	15.4	16.5	22.8	23.5	11.1	5.1	0.5	16.7
Yield of Cut (vol% of Crude)		4.8	16.9	17.0	22.4	22.2	10.1	4.5	0.4	15.0
Gravity, °API	41.3	80.1	58.3	46.4	37.8	31.5	26.7	20.8	6.5	24.3
Specific Gravity	0.8189	0.6688	0.7453	0.7953	0.8356	0.8679	0.8942	0.9289	1.0254	0.9082
Sulfur, wt%	0.02			0.00	0.01	0.03	0.07	0.10	0.28	0.09
Mercaptan Sulfur, ppm	3	0	1	2	3	3	3	1	1	3
Nitrogen, ppm	107				1	11	186	1052	5786	626
Hydrogen, wt%	13.7	16.1	14.9	14.0	13.5	13.1	12.7	12.2	10.4	12.5
Viscosity @ 40 °C (104 °F), cSt					1.58	4.30	21.6	303	7.59E+06	31.4
Viscosity @ 50 °C (122 °F), cSt					1.40	3.42	14.3	148	6.47E+05	15.3
Viscosity @ 100 °C (212 °F), cSt					0.881	1.48	3.49	14.9	1150	1.75
Viscosity @ 135 °C (275 °F), cSt					0.684	0.986	1.90	5.59	112	0.815
Freeze Point, °C					-46.000	-23.000	1.00	15.0	18.0	7.00
Freeze Point, °F					-50	-9	34	59	65	45
Pour Point, °C					-40	-13	16	39	100	
Pour Point, °F					-40	8	60	103	212	
Smoke Point, mm (ASTM)					15	10	7			
Aniline Point, °C					61	64	81	93	96	86
Aniline Point, °F					141	148	177	200	204	187
Total Acid Number, mg KOH/g	0.05				0.0	0.1	0.1	0.3	0.5	0.2
Cetane Index, ASTM D976				35	42	45				
Diesel Index					53	47	47	42	13	45
Characterization Factor (K Factor)		12.6	11.9	11.7	11.6	11.6	11.8	12.0	11.5	11.2
Research Octane Number, Clear		65.1	50.6	43.6						
Motor Octane Number, Clear		63.1	49.4							
Paraffins, vol%		83.0	52.7	36.4	28.0					
Naphthenes, vol%		17.0	43.7	52.9	57.8					
Aromatics, vol%		0.0	3.6	10.6	14.2					
Thiophenes, vol%										
Molecular Weight	176	102	115	144	175	214	302	446	530	337
Gross Heating Value, MM BTU/bbl		4.88	5.30	5.56	5.77	5.93	6.07	6.23	6.59	6.09
Gross Heating Value, kcal/kg		11580	11270	11100	10970	10830	10770	10640	10190	10630
Gross Heating Value, MJ/kg		48.5	47.2	46.5	45.9	45.3	45.1	44.5	42.7	44.5
Heptane Asphaltenes, wt%	0.1								19.0	0.6
Micro Carbon Residue, wt%	0.2								37.6	1.2
Ramsbottom Carbon, wt%	0.2								35.6	1.1
Vanadium, ppm	0								1	0
Nickel, ppm	1								232	7
Iron, ppm	0								17	1

Date Created
6/5/2003

Date Assayed
2001

THEVENARD ISLAND - DISTILLATION SUMMARY

		Whole Crude	Light Naphtha	Medium Naphtha	Heavy Naphtha	Kero	Atm Gas Oil	Light VGO	Heavy VGO	Vacuum Resid	Atm Resid
TBP Temp At Start, °C			10	80	150	200	260	340	450	570	340
TBP Temp At End, °C			80	150	200	260	340	450	570	End	End
TBP Temp At Start, °F			55	175	300	400	500	650	850	1050	650
TBP Temp At End, °F			175	300	400	500	650	850	1050	End	End
Yield at Start, vol%			1.7	6.5	23.4	40.4	62.8	85.0	95.1	99.6	85.0
Yield at End, vol%			6.5	23.4	40.4	62.8	85.0	95.1	99.6	100.0	100.0
Yield of Cut (wt% of Crude)			3.9	15.4	16.5	22.8	23.5	11.1	5.1	0.5	16.7
Yield of Cut (vol% of Crude)			4.8	16.9	17.0	22.4	22.2	10.1	4.5	0.4	15.0
TBP Distillation, vol%	°C Start		10	80	150	200	260	340	450	560	340
	°C 5%		27	81	152	208	262	346	458		347
	°C 10%		31	91	154	211	266	350	461	563	353
	°C 30%		49	100	166	224	278	365	476	563	379
	°C 50%		63	114	178	236	293	385	492	565	416
	°C 70%		68	122	189	245	311	410	513	569	461
	°C 90%		72	138	199	255	331	439	543	577	520
	°C 95%		73	146	202	257	337	448	556		557
	°C End		80	170	200	260	340	460	570	End	End
TBP Distillation, vol%	°F Start		50	175	300	400	500	650	850	1040	650
	°F 5%		80	178	305	406	504	655	857		657
	°F 10%		88	195	310	412	510	662	862	1045	668
	°F 30%		121	212	331	436	533	689	888	1045	714
	°F 50%		145	237	352	456	560	725	918	1049	780
	°F 70%		155	251	372	473	591	770	955	1057	861
	°F 90%		161	281	391	491	628	822	1009	1071	968
	°F 95%		163	295	396	495	638	838	1032		1035
	°F End		175	330	400	500	650	860	1050	End	End

Date Created
6/5/2003

Date Assayed
2001