

SPR CRUDE OIL COMPREHENSIVE ANALYSIS

BM 2 (9%), BM 4 (28%), BM 106 (17%),
BM 113 (8%), BM 114 (11%), BM 115
(13%), BM 116 (14%)

Sample ID Bryan Mound, Sweet

Sample No. _____

Laboratory No. none

Date collected 10/31/2006

Date results reported 10/31/2006

Sediment by Extraction, mass %		Crude					Water, mass %		Salt, mass %	
0.03							0.02		0.016	
Relative Density, 60/60° F	0.8430	Ni, ppm	3.56			RVP, psi @ 100° F	5.47			
API Gravity	36.4	V, ppm	5.32			Acid number, mg KOH/g	0.12			
Sulfur, mass %	0.366	Fe, ppm	0.92			Mercaptan Sulfur, ppm	16			
Nitrogen, mass %	0.101	Cu, ppm	0.23			H ₂ S Sulfur, ppm	9			
Micro Car. Res., mass %	2.1	Org. Cl, ppm	0.3			Viscosity: 77° F	6.603	cSt		
Pour Point, °F	36	UOP "K" Factor*	12.0			100° F	4.303	cSt		
Wax, mass %	0.33	Asphaltenes, mass %	0.41							
Fraction	Gas	1	2	3	4	5	6	7	Residuum	Residuum
Cut Temp.	C ₂ - C ₄	C5 - 175° F	175° - 250° F	250° - 375° F	375° - 530° F	530° - 650° F	650° - 850° F	850° - 1050° F	650° F+	1050° F+
Vol. %	3.7	6.6	8.6	12.8	17.2	11.2	15.8	13.0	39.9	11.1
Vol. Sum %	3.7	10.3	18.9	31.8	49.0	60.1	75.9	88.9	100.0	100.0
mass %	2.6	5.2	7.5	11.9	16.9	11.4	16.7	14.5	44.4	13.3
mass Sum %	2.6	7.8	15.3	27.3	44.2	55.6	72.3	86.7	100.0	100.0
Relative Density, 60/60° F		0.6705	0.7372	0.7837	0.8284	0.8601	0.8928	0.9373	0.9395	1.009
API Gravity		79.5	60.4	49.1	39.3	33.0	27.0	19.5	19.1	8.8
Sulfur, mass %		0.0022	0.0024	0.0142	0.0952	0.290	0.453	0.689	0.753	1.20
Mercaptan Sulfur, ppm		8	10	20	14					
H ₂ S Sulfur, ppm		1	3	6	1					
Organic Cl, ppm		1.5	1.4	0.8	1.1					
Research Octane Number*		66.2	56.5							
Motor Octane Number*		64.1	54.4							
Acid Number, mg KOH/g					0.05	0.10	0.11	0.11	0.14	0.09
Cetane Index*					44.7	55.3	61.9			
Aromatics, Vol. %					20.4					
Naphthalenes, Vol. %				0.02	4.59	8.98				
Wax, mass %							5.13	7.88		
UOP "K" Factor*					11.7	11.8	11.9	11.9		11.7
Hydrogen, mass %				14.1	13.6	13.3	13.0	12.5	12.2	10.9
Carbon, mass %				85.2	86.2	86.5	86.6	86.5	86.6	86.7
Nitrogen, mass %					0.0010	0.0095	0.0539	0.175	0.223	0.489
Refractive Index, 60° C							1.4785	1.4973		
Viscosity, cSt	77° F				2.503					
	100° F				1.977	5.298				
	130° F					3.565	12.62	82.71	104.9	
	180° F						4.822	39.30	30.95	3063
	210° F									960.0
	275° F									
Aniline Point, ° F				122.6	143.6	165.3	185.6	205.1		
Smoke point, mm				25.5	19.4	15.0				
Freezing Point, °F					-29					
Cloud Point, °F					-36	28	86	131		
Pour Point, °F					-41	21	81	126	91	
Ni, ppm								0.27	7.86	27.8
V, ppm								0.02	11.8	42.6
Fe, ppm									4.58	19.6
Cu, ppm									0.39	1.20
Micro Car. Res., mass %							0.01	0.66	4.64	14.91
Asphaltenes, mass %									0.89	4.26

* Data are calculated