

Reference: **UNGLD22Y**
Crude: **Unity Gold**

Crude Summary Report

General Information		Molecules (%wt on crude)									Whole Crude Properties			
Reference:	UNGLD22Y	methane + ethane	0.00								Density @ 15°C (g/cc)	0.8479		
Name:	Unity Gold	propane	0.26								API Gravity	35.30		
Traded Crude:	Unity Gold	isobutane	0.25								Total Sulphur (% wt)	0.39		
Origin:	Guyana	n-butane	0.81								Pour Point (°C)	-19.5		
Sample Date:	29 Jul 2022	isopentane	0.70								Viscosity @ 20°C (cSt)	11.21		
Assay Date:	26 Aug 2022	n-pentane	1.04								Viscosity @ 40°C (cSt)	4.96		
Issue Date:		cyclopentane	0.11								Nickel (ppm)	8.4		
Comments:		C ₆ paraffins	2.76								Vanadium (ppm)	13.4		
		C ₆ naphthenes	0.77								Total Nitrogen (ppm)	1171		
		benzene	0.12								Total Acid Number (mgKOH/g)	0.29		
		C ₇ paraffins	2.72								Mercaptan Sulphur (ppm)	9.7		
		C ₇ naphthenes	1.41								Salt (lb/1000 bbl)	20		
		toluene	0.43								Reid Vapour Pressure (kPa)	45.8		

Cut Data		Atmospheric Cuts									Vacuum Cuts			
Start (°C)	IBP	C5	65	100	150	200	250	300	350	370	370	450	500	550
End (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP
Yield (% wt)		4.0	5.1	9.5	9.4	9.0	9.4	9.2	3.5	39.6	13.3	7.1	5.8	13.3
Yield (% vol)		5.2	6.0	10.6	9.9	9.3	9.3	8.9	3.4	35.4	12.4	6.5	5.2	11.2
Cumulative Yield (% wt)		1.3	5.3	10.4	20.0	29.4	38.4	47.8	56.9	60.4	60.4	73.7	80.8	86.7
Volume Average B.P. (°C)	306	43	83	125	174	225	275	325	360	512	409	474	524	641
Density @ 15°C (g/cc)	0.8479	0.653	0.714	0.760	0.796	0.823	0.844	0.865	0.879	0.942	0.899	0.923	0.943	0.999
API Gravity	35.3	85.3	66.6	54.7	46.2	40.4	36.0	32.1	29.3	18.7	25.8	21.7	18.5	10.1
UOPK	12.0			11.8	11.7	11.7	11.8	11.8	11.9	11.9	11.9	12.0	12.0	11.8
Molecular Weight (g/mol)				110	137	170	209	254	290	500	345	442	552	948
Total Sulphur (% wt)	0.390	0.009	0.021	0.034	0.055	0.096	0.161	0.254	0.335	0.81	0.469	0.66	0.82	1.23
Mercaptan Sulphur (ppm)	9.7	2.2	4.2	6.3	7.1	6.0	3.8							
Total Nitrogen (ppm)	1171					11	75	351	695	2798	1259	2030	2602	4826
Basic Nitrogen (ppm)	442					8.5	45.0	133	226	1053	383	597	800	2073
Total Acid Number (mgKOH/g)	0.29	0.03	0.05	0.12	0.23	0.27	0.30	0.39	0.44	0.39	0.47	0.49	0.51	0.22
Viscosity @ 20°C (cSt)	11.2				1.49									
Viscosity @ 40°C (cSt)	4.96				1.14	1.73	2.97	5.95	10.9					
Viscosity @ 50°C (cSt)	3.62					1.50	2.47	4.67	8.08	463	20.5	109	645	
Viscosity @ 60°C (cSt)										230	14.4	63.7	308	
Viscosity @ 100°C (cSt)										31.5	5.03	13.7	37.9	2115
Viscosity @ 130°C (cSt)														271
RON (Clear)	53.5	75.9	34.3	52.5	30.3									
MON (Clear)	59.8	73.8	49.3	52.5	29.1									
Paraffins (% wt)	31.5	96.4	73.5	47.5	56.2									
Naphthenes (%wt)	35.4	3.6	24.4	37.5	28.0									
Aromatics (% wt)	33.1	0.0	2.2	14.9	15.8									
Pour Point (°C)	-20					-48	-25	-1	13	36	29	44	54	51
Cloud Point (°C)						-46	-23	1						
Freeze Point (°C)						-60	-42	-19						
Smoke Point (mm)						25	22	18						
Cetane Index						35	44	52	58	62				
Naphthalenes (% vol)						0.11	3.3	7.1	8.0					
Aniline Point (°C)				50.5	55.4	63.6	71.6	79.1	83.8		89.8	94.8	95.7	
Hydrogen (% wt)		16.5	15.6	14.3	14.3	13.6	13.6	13.3	13.2		12.8	12.7	12.4	
C ₇ Asphaltenes (% wt)	0.4									1.1	0.0	0.0	3.2	
Micro Carbon Residue (% wt)	2.1									5.3	0.5	2.4	14.5	
Vanadium (ppm)	13.4									33.8	0.0	0.0	100.4	
Nickel (ppm)	8.4									21.3	0.0	0.0	63.2	
Iron (ppm)	3.4									8.6	0.0	0.0	25.5	

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Yield Distribution

Cumulative Yield

