

Reference: PAYRA24  
Crude: Payara Gold



## Crude Summary Report

General Information		Molecules (%wt on crude)									Whole Crude Properties			
Reference:	PAYRA24	methane + ethane								0.00	Density @ 15°C (g/cc)	0.8779		
Name:	Payara Gold	propane								0.17	<b>API Gravity</b>	<b>29.6</b>		
Origin:	Guyana	isobutane								0.17	Total Sulfur (% wt)	0.60		
Assay Date:	9/20/2024	n-butane								0.72	Pour Point (°C)	-15		
Comments:		isopentane								0.61	Viscosity @ 20°C (cSt)	20.1		
		n-pentane								0.79	Viscosity @ 40°C (cSt)	10.7		
		cyclopentane								0.11	Nickel (ppm)	13.6		
		C6 paraffins								1.53	Vanadium (ppm)	9.1		
		C6 naphthenes								0.96	Total Nitrogen (ppm)	1811		
		benzene								0.06	Total Acid Number (mgKOH/g)	0.72		
		C7 paraffins								1.30	Mercaptan Sulfur (ppm)	4.0		
		C7 naphthenes								1.74	Hydrogen Sulfide (ppm)	0.0		
		toluene								0.20	Reid Vapor Pressure (kPa)	35.6		
											Salt (ptb)	20.0		

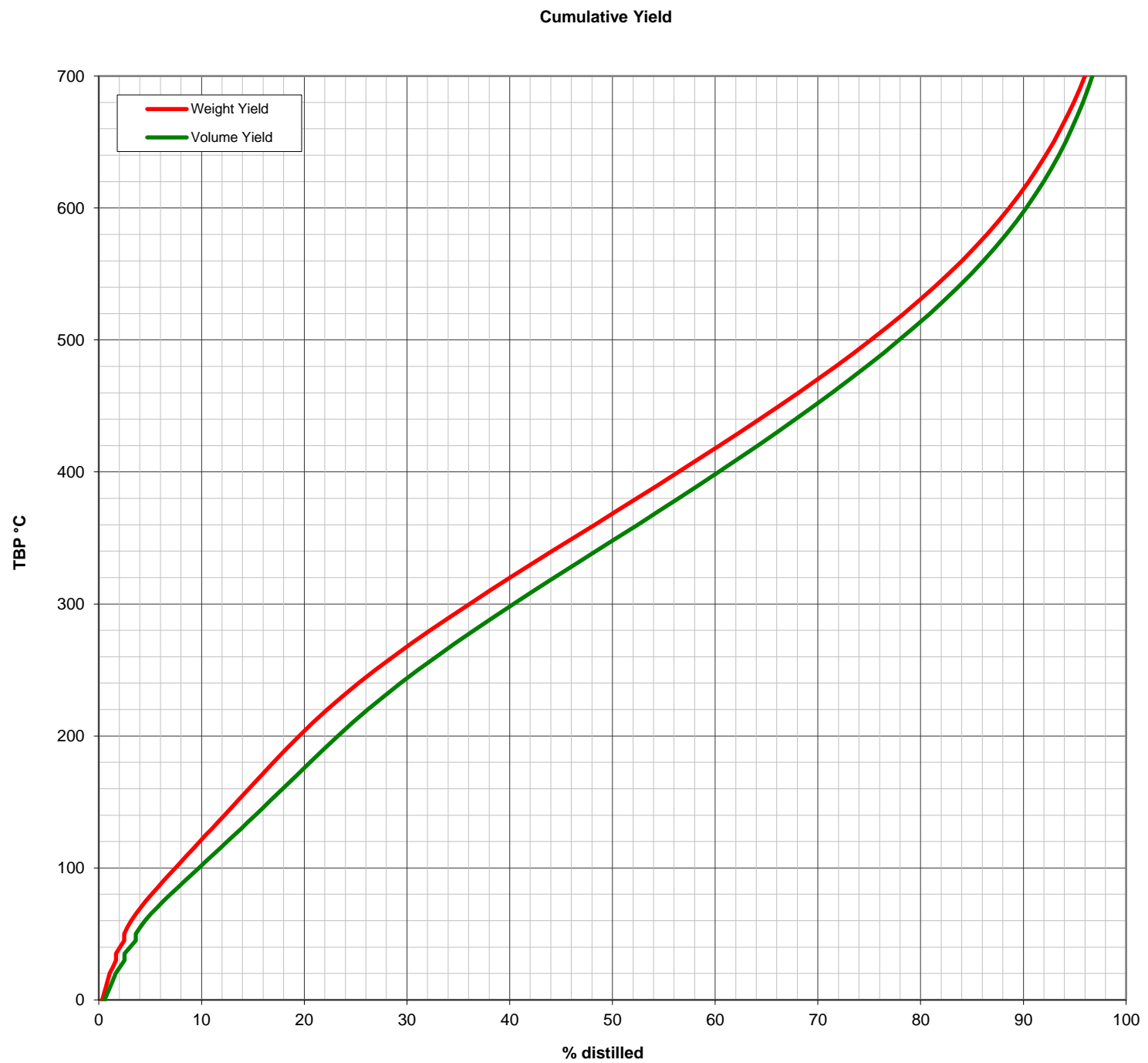
  

Cut Data	IBP	Atmospheric Cuts									Vacuum Cuts				
		C5	65	100	150	200	250	300	350	370	370	450	500	550	
Start (°C)															
End (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP	
Yield (% wt)		2.7	3.9	6.0	6.1	7.4	9.1	10.1	4.1	49.7	15.9	8.9	7.5	17.3	
Yield (% vol)		3.7	4.7	6.8	6.7	7.8	9.3	10.1	4.0	45.5	15.2	8.3	7.0	15.1	
Cumulative Yield (% wt)		0.9	3.6	7.5	13.4	19.5	26.9	36.1	46.2	50.3	50.3	66.2	75.1	82.7	
Volume Average B.P. (°C)	351	42.0	83	125	175	226	275	325	360	516	409	474	524	642	
Density @ 15°C (g/cc)	0.8779	0.6425	0.7208	0.7624	0.7939	0.8328	0.8622	0.8785	0.8993	0.9534	0.9167	0.9381	0.9462	1.0021	
API Gravity	29.6	88.7	64.8	54.1	46.7	38.3	32.5	29.5	25.8	16.8	22.8	19.3	18.0	9.6	
UOPK	11.84			11.73	11.72	11.58	11.54	11.66	11.61	11.78	11.68	11.76	11.91	11.78	
Molecular Weight (g/mol)				109	138	169	205	250	283	498	337	432	549	952	
Total Sulfur (% wt)	0.6	0.000	0.000	0.003	0.027	0.089	0.225	0.463	0.58	1.01	0.64	0.81	1.01	1.45	
Mercaptan Sulfur (ppm)	4.0	0.2	0.7	2.1	4.5	3.5	1.7								
Total Nitrogen (ppm)	1811					12	59	273	547	3532	1202	2132	2655	6774	
Basic Nitrogen (ppm)	581					12	47	119	216	1118	438	706	926	2037	
Total Acid Number (mgKOH/g)	0.72	0.00	0.02	0.08	0.17	0.28	0.54	1.00	1.31	0.97	1.47	1.30	0.99	0.33	
Viscosity @ 20°C (cSt)	20.1				1.40										
Viscosity @ 40°C (cSt)	10.7				1.06	1.69	3.14	7.06	14.4						
Viscosity @ 50°C (cSt)	8.19					1.46	2.58	5.39	10.3	567	31.1	164	560		
Viscosity @ 60°C (cSt)										287	20.8	93.2	284		
Viscosity @ 100°C (cSt)										40.3	6.40	18.2	39.9	1729	
Viscosity @ 130°C (cSt)														302	
Viscosity @ 150°C (cSt)														125	
RON (Clear)		76.1	51.6	58.2	33.9										
MON (Clear)		74.2	63.2	56.9	31.5										
Paraffins (% wt)	24.5	95.4	52.2	30.4	42.0										
Naphthenes (%wt)	35.0	4.6	46.3	59.4	45.1										
Aromatics (% wt)	40.5	0.0	1.5	10.1	12.9										
Pour Point (°C)	-15						-56	-32	-8	5	28	23	40	49	52
Cloud Point (°C)							-53	-30	-6						
Freeze Point (°C)							-72	-47	-23						
Smoke Point (mm)						25	21	16							
Cetane Index (D4737A)						37	40	44	52	53					
Naphthalenes (% vol)						0.1	2.4	5.9	7.6						
Aniline Point (°C)				53.3	55.1	58.9	63.0	68.0	72.2		78.6	85.0	87.8		
Hydrogen (% wt)	13.0	16.5	15.2	14.3	14.2	13.4	13.2	12.8	12.5		12.3	12.2	12.5		
Total Wax (% wt)	8.1									5.8	12.3	3.1	4.1	1.9	
C7 Asphaltenes (% wt)	0.6									1.2	0.0	0.0	3.4		
Micro Carbon Residue (% wt)	2.8									5.7	0.1	1.3	15.7		
Vanadium (ppm)	9.1									18.3	0.0	0.0	52.6		
Nickel (ppm)	13.6									27.4	0.0	0.0	78.7		
Iron (ppm)	6.4									13.0	0.0	0.0	37.2		
Sodium (ppm)	0.8														
Mercury (ppb)	1.0														
Arsenic (ppb)	7														

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## Yield Distribution



**Cumulative Volume % Distilled at 10 Degree C (TBP) Intervals**

	0	10	20	30	40	50	60	70	80	90
0				2.5	3.0	3.6	4.5	5.7	7.0	8.4
100	9.7	11.1	12.5	13.9	15.2	16.6	17.9	19.2	20.6	21.9
200	23.3	24.7	26.2	27.7	29.4	31.1	32.8	34.7	36.5	38.4
300	40.4	42.3	44.3	46.4	48.4	50.4	52.4	54.5	56.4	58.4
400	60.3	62.3	64.1	66.0	67.8	69.6	71.4	73.1	74.7	76.4
500	77.9	79.4	80.9	82.3	83.6	84.9	86.1	87.2	88.3	89.3