

Reference: ERHA22Y
Crude: Erha



Crude Summary Report

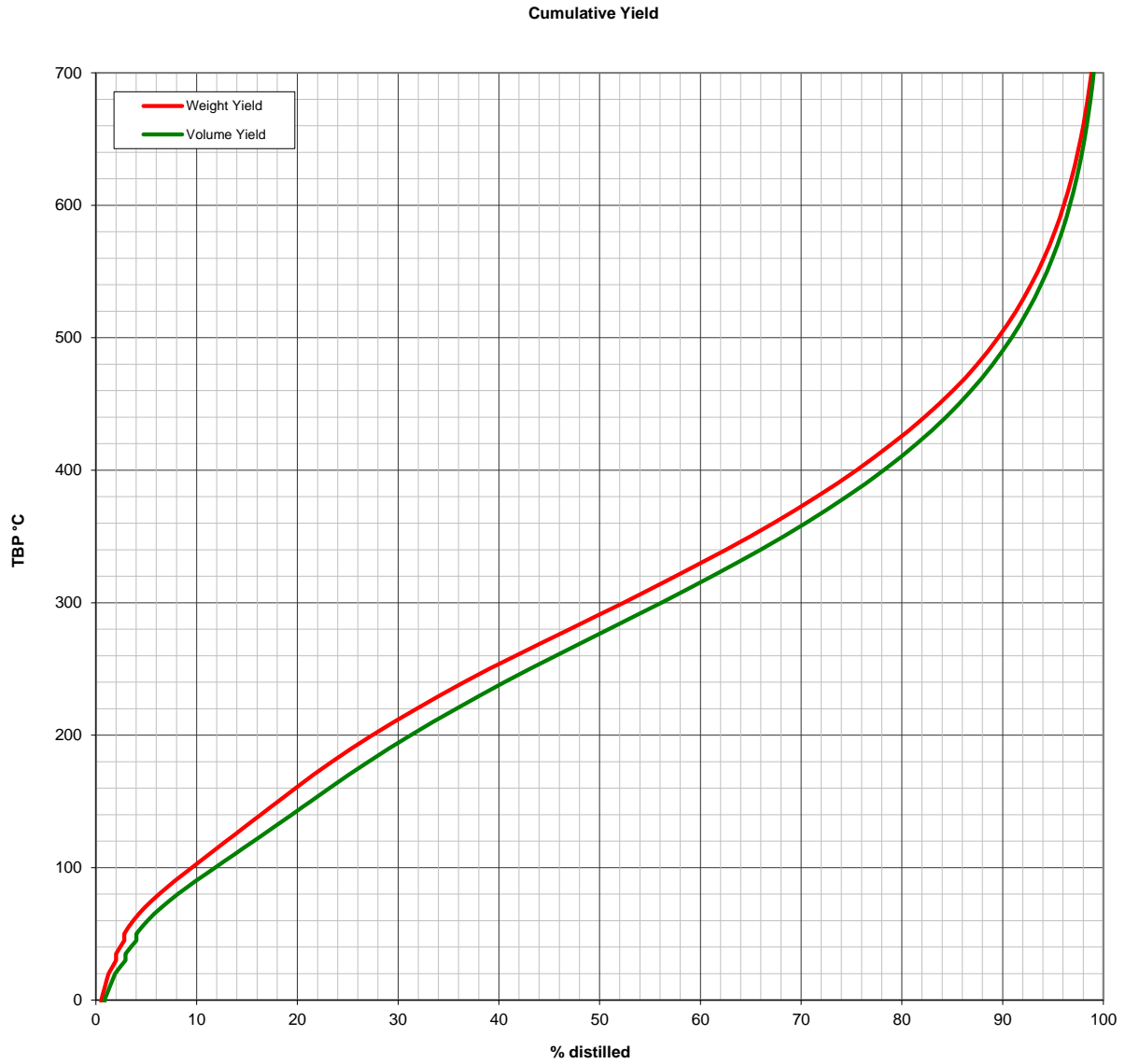
General Information		Molecules (%wt on crude)				Whole Crude Properties			
Reference:	ERHA22Y	methane + ethane	0.02	Density @ 15°C (g/cc)	0.8489				
Name:	Erha	propane	0.34	API Gravity	35.1				
Origin:	Nigeria	isobutane	0.33	Total Sulfur (% wt)	0.18				
Assay Date:	5/20/2022	n-butane	0.78	Pour Point (°C)	-24				
Comments:		isopentane	0.74	Viscosity @ 20°C (cSt)	4.8				
		n-pentane	0.75	Viscosity @ 40°C (cSt)	3.5				
		cyclopentane	0.17	Nickel (ppm)	4.5				
		C6 paraffins	1.69	Vanadium (ppm)	0.2				
		C6 naphthenes	1.42	Total Nitrogen (ppm)	792				
		benzene	0.23	Total Acid Number (mgKOH/g)	0.33				
		C7 paraffins	1.73	Mercaptan Sulfur (ppm)	27.0				
		C7 naphthenes	2.36	Hydrogen Sulfide (ppm)	0.0				
		toluene	0.84	Reid Vapor Pressure (kPa)	39.6				

Cut Data	IBP	Atmospheric Cuts									Vacuum Cuts			
		C5	65	100	150	200	250	300	350	370	370	450	500	550
Start (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP
Yield (% wt)		3.2	5.3	8.6	9.3	11.6	13.3	12.6	4.5	30.5	14.2	5.9	3.9	6.5
Yield (% vol)		4.1	6.1	9.5	9.9	11.8	13.0	12.1	4.3	27.5	13.1	5.2	3.5	5.6
Cumulative Yield (% wt)		1.1	4.3	9.5	18.1	27.4	39.0	52.4	64.9	69.5	69.5	83.7	89.6	93.5
Volume Average B.P. (°C)	285	42.4	83	125	176	226	275	324	360	480	407	473	523	632
Density @ 15°C (g/cc)	0.8489	0.6509	0.7366	0.7645	0.7960	0.8322	0.8639	0.8774	0.8954	0.9410	0.9182	0.9468	0.9495	0.9837
API Gravity	35.1	85.9	60.6	53.5	46.2	38.4	32.2	29.7	26.5	18.8	22.5	17.9	17.5	12.3
UOPK	11.79			11.70	11.70	11.59	11.52	11.67	11.66	11.76	11.64	11.65	11.87	11.96
Molecular Weight (g/mol)				109	138	169	205	250	284	431	333	424	544	924
Total Sulfur (% wt)	0.18	0.000	0.001	0.006	0.024	0.056	0.122	0.196	0.237	0.387	0.286	0.386	0.454	0.57
Mercaptan Sulfur (ppm)	27.0	2.0	9.0	11.4	4.1	2.9	2.0							
Total Nitrogen (ppm)	792					17	60	149	302	2455	787	1880	3162	6195
Basic Nitrogen (ppm)	315					14	49	131	233	916	445	825	1195	1863
Total Acid Number (mgKOH/g)	0.33	0.00	0.01	0.02	0.03	0.04	0.10	0.29	0.49	0.81	0.77	1.06	1.08	0.52
Viscosity @ 20°C (cSt)	4.81				1.40									
Viscosity @ 40°C (cSt)	3.46				1.06	1.72	3.25	7.58	16.7					
Viscosity @ 50°C (cSt)	3.00					1.47	2.65	5.73	11.7	224	37.1	225	747	
Viscosity @ 60°C (cSt)										122	24.1	121	360	
Viscosity @ 100°C (cSt)										21.4	6.92	20.9	44.7	777
Viscosity @ 130°C (cSt)														156
Viscosity @ 150°C (cSt)														69.9
RON (Clear)		78.2	49.0	64.8	38.8									
MON (Clear)		77.0	63.9	60.7	36.3									
Paraffins (% wt)	27.3	93.4	50.0	29.5	42.5									
Naphthenes (%wt)	39.6	6.6	45.2	50.3	39.3									
Aromatics (% wt)	33.1	0.0	4.8	20.2	18.2									
Pour Point (°C)	-24					-50	-30	-4	9	34	25	40	49	61
Cloud Point (°C)						-48	-28	-1						
Freeze Point (°C)						-56	-42	-23						
Smoke Point (mm)						25	20	16						
Cetane Index (D4737A)						36	40	43	52	55				
Naphthalenes (% vol)						0.1	2.5	6.7	9.1					
Aniline Point (°C)				48.9	52.8	60.1	67.2	73.4	76.8		80.3	84.2	86.5	
Hydrogen (% wt)	13.2	16.5	15.0	13.7	14.0	13.3	13.2	12.9	12.7		12.4	12.1	12.3	
Total Wax (% wt)	9.9									8.7	12.3	8.1	6.0	3.1
C7 Asphaltenes (% wt)	0.0									0.1	0.0	0.0	0.0	0.6
Micro Carbon Residue (% wt)	0.8									2.6	0.2	1.5	11.1	
Vanadium (ppm)	0.2									0.8	0.0	0.0	3.6	
Nickel (ppm)	4.5									14.7	0.0	0.0	69.0	
Iron (ppm)	1.5									5.1	0.0	0.0	23.7	
Sodium (ppm)	0.8													
Mercury (ppb)	1.0													
Arsenic (ppb)	135													

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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				2.9	3.5	4.0	5.1	6.5	8.1	9.9
100	11.8	13.7	15.7	17.6	19.4	21.3	23.2	25.1	27.0	29.1
200	31.2	33.5	35.8	38.1	40.6	43.1	45.6	48.3	50.9	53.5
300	56.1	58.7	61.2	63.6	66.0	68.2	70.4	72.5	74.5	76.4
400	78.2	79.9	81.5	83.0	84.4	85.7	86.9	88.0	89.0	90.0
500	90.9	91.7	92.5	93.2	93.8	94.4	94.9	95.4	95.9	96.3