



**SHRADDHA**  
ANALYTICAL SERVICES  
*Serving The Industry Since Last 22 Years*

## Particle Size Analysis by Coulter Instrument

### Sample Requirement :-

1. Solid Sample - 2 gms.
2. Liquid Sample - 15 ml.



### Applications :-

1. Laser Based Diffraction Technique for measurement of Particle Size in range of 0.4  $\mu\text{m}$  to 1600  $\mu\text{m}$  (400 nm to 1600 Microns) by using Wet dispersion method [ In Water, Liquid Paraffin or Solvent ] for Solid and Liquid Samples or by using Dry powder Feeder assembly for dried powder samples.

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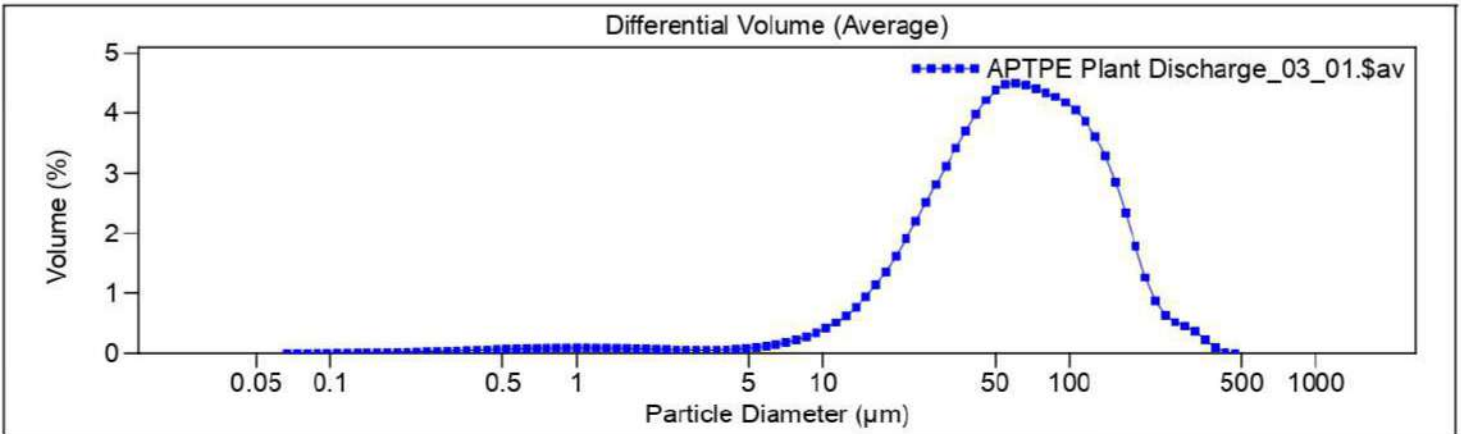
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File name: E:\Particle Size Data\shradha\APTPE Plant Discharge\_03\_01.sav  
 File ID: APTPE Plant Discharge\_03\_01.sav  
 Sample ID: APTPE Plant Discharge  
 Optical model: Fraunhofer.r780d  
 LS 13 320 Universal Liquid Module  
 Fluid: Water  
 Average of 3 files  
 E:\Particle Size Data\shradha\APTPE Plant Discharge\_01\_01.xls  
 E:\Particle Size Data\shradha\APTPE Plant Discharge\_02\_01.xls  
 E:\Particle Size Data\shradha\APTPE Plant Discharge\_03\_01.xls



Volume Statistics (Arithmetic) APTPE Plant Discharge\_03\_01.sav

Calculations from 0.017 µm to 2000 µm

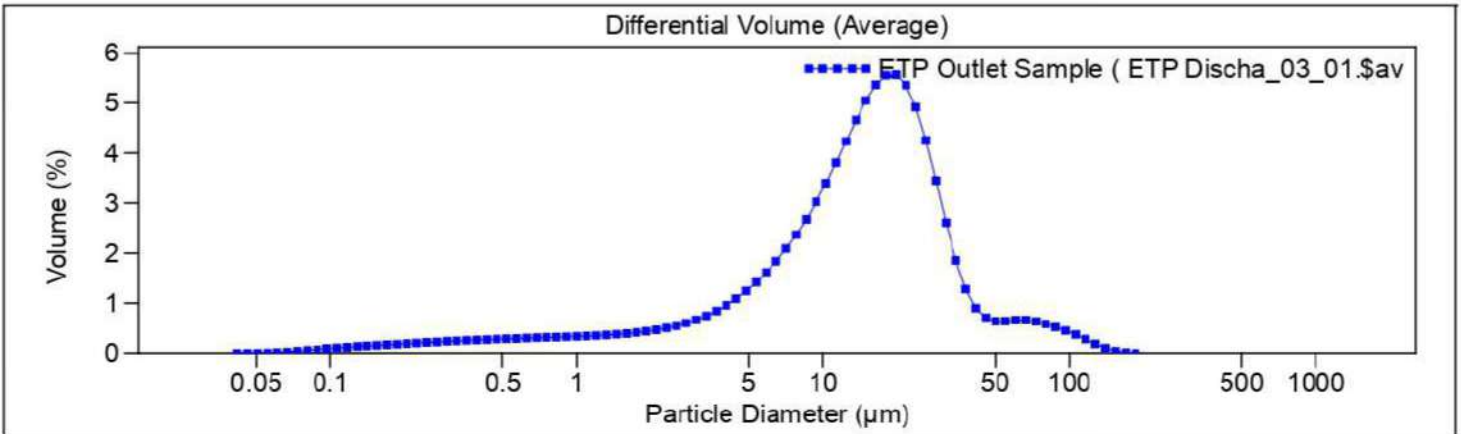
Volume: 100%  
 Mean: 76.43 µm S.D.: 58.70 µm  
 D(3.2): 17.32 µm C.V.: 76.8%  
 Specific Surf. Area: 0.346 m<sup>2</sup>/mL  
 d<sub>10</sub>: 19.60 µm d<sub>50</sub>: 60.70 µm d<sub>90</sub>: 153.7 µm

APTPE Plant Discharge_03_01.sav							
Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %
0.017	0	0.657	0.74	22.73	12.9	786.9	100
0.019	0	0.721	0.82	24.95	15.1	863.9	100
0.021	0	0.791	0.90	27.39	17.6	948.3	100
0.023	0	0.869	0.98	30.07	20.4	1041	100
0.026	0	0.954	1.06	33.01	23.5	1143	100
0.029	0	1.047	1.15	36.24	26.9	1255	100
0.032	0	1.149	1.23	39.78	30.6	1377	100
0.036	0	1.261	1.32	43.67	34.6	1512	100
0.040	0	1.385	1.40	47.94	38.8	1660	100
0.044	0.000071	1.520	1.48	52.63	43.2	1822	100
0.048	0.00017	1.669	1.56	57.77	47.7	2000	100
0.053	0.00035	1.832	1.63	63.42	52.2		
0.058	0.00071	2.011	1.70	69.62	56.6		
0.064	0.0014	2.208	1.76	76.43	61.0		
0.070	0.0028	2.423	1.82	83.90	65.4		
0.077	0.0050	2.660	1.88	92.10	69.7		
0.084	0.0081	2.920	1.94	101.1	73.8		
0.093	0.012	3.206	1.99	111.0	77.9		
0.102	0.018	3.519	2.04	121.8	81.7		
0.112	0.025	3.863	2.10	133.7	85.3		
0.123	0.033	4.241	2.16	146.8	88.6		
0.134	0.043	4.656	2.22	161.2	91.5		
0.148	0.056	5.111	2.30	176.9	93.8		
0.162	0.070	5.611	2.39	194.2	95.6		
0.178	0.087	6.159	2.51	213.2	96.9		
0.195	0.11	6.761	2.65	234.1	97.7		
0.214	0.13	7.422	2.82	256.9	98.4		
0.235	0.16	8.148	3.03	282.1	98.9		
0.258	0.19	8.944	3.30	309.6	99.3		
0.284	0.22	9.819	3.63	339.9	99.7		
0.311	0.26	10.78	4.04	373.1	99.9		
0.342	0.31	11.83	4.54	409.6	99.98		
0.375	0.35	12.99	5.17	449.7	99.999		
0.412	0.41	14.26	5.93	493.6	100		
0.452	0.47	15.65	6.87	541.9	100		
0.496	0.53	17.18	8.00	594.9	100		
0.545	0.59	18.86	9.35	653.0	100		
0.598	0.66	20.71	11.0	716.9	100		

Beckman Coulter LS Particle Size Analyzer

21 Apr 2022 16:15

File name: E:\Particle Size Data\shradha\ETP Outlet Sample ( ETP Discha\_03\_01.\$av  
 File ID: ETP Outlet Sample ( ETP Discha\_03\_01.\$av  
 Sample ID: ETP Outlet Sample ( ETP Discharge)  
 Optical model: Fraunhofer.r780d  
 LS 13 320 Universal Liquid Module  
 Fluid: Water  
 Average of 3 files  
 E:\Particle Size Data\shradha\ETP Outlet Sample ( ETP Discha\_01\_01.\$is  
 E:\Particle Size Data\shradha\ETP Outlet Sample ( ETP Discha\_02\_01.\$is  
 E:\Particle Size Data\shradha\ETP Outlet Sample ( ETP Discha\_03\_01.\$is



Volume Statistics (Arithmetic) ETP Outlet Sample ( ETP Discha\_03\_01.\$av

Calculations from 0.017 µm to 2000 µm

Volume: 100%  
 Mean: 18.71 µm S.D.: 18.42 µm  
 D(3.2): 3.185 µm C.V.: 98.5%  
 Specific Surf. Area: 1.884 m<sup>2</sup>/mL  
 d<sub>10</sub>: 2.589 µm d<sub>50</sub>: 14.98 µm d<sub>90</sub>: 33.82 µm

ETP Outlet Sample ( ETP Discha_03_01.\$av		Discha_03_01.\$av		Discha_03_01.\$av		Discha_03_01.\$av	
Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %	Channel Diameter (Lower) µm	Cum. < Volume %
0.017	0	0.657	4.46	22.73	74.3	786.9	100
0.019	0	0.721	4.77	24.95	79.2	863.9	100
0.021	0	0.791	5.07	27.39	83.5	948.3	100
0.023	0	0.869	5.39	30.07	86.9	1041	100
0.026	0	0.954	5.71	33.01	89.5	1143	100
0.029	0	1.047	6.04	36.24	91.4	1255	100
0.032	0	1.149	6.37	39.78	92.7	1377	100
0.036	0	1.261	6.72	43.67	93.6	1512	100
0.040	0	1.385	7.07	47.94	94.3	1660	100
0.044	0.0018	1.520	7.44	52.63	94.9	1822	100
0.048	0.0042	1.669	7.83	57.77	95.5	2000	100
0.053	0.0079	1.832	8.23	63.42	96.2		
0.058	0.015	2.011	8.66	69.62	96.8		
0.064	0.031	2.208	9.12	76.43	97.5		
0.070	0.060	2.423	9.62	83.90	98.1		
0.077	0.10	2.660	10.2	92.10	98.6		
0.084	0.16	2.920	10.8	101.1	99.0		
0.093	0.23	3.206	11.4	111.0	99.4		
0.102	0.32	3.519	12.2	121.8	99.7		
0.112	0.42	3.863	13.0	133.7	99.8		
0.123	0.53	4.241	14.0	146.8	99.9		
0.134	0.66	4.656	15.1	161.2	99.98		
0.148	0.80	5.111	16.3	176.9	99.996		
0.162	0.95	5.611	17.7	194.2	100		
0.178	1.11	6.159	19.3	213.2	100		
0.195	1.28	6.761	21.2	234.1	100		
0.214	1.47	7.422	23.2	256.9	100		
0.235	1.66	8.148	25.6	282.1	100		
0.258	1.87	8.944	28.3	309.6	100		
0.284	2.09	9.819	31.3	339.9	100		
0.311	2.32	10.78	34.7	373.1	100		
0.342	2.56	11.83	38.5	409.6	100		
0.375	2.81	12.99	42.7	449.7	100		
0.412	3.06	14.26	47.4	493.6	100		
0.452	3.33	15.65	52.5	541.9	100		
0.496	3.60	17.18	57.8	594.9	100		
0.545	3.88	18.86	63.4	653.0	100		
0.598	4.17	20.71	68.9	716.9	100		