

ASPHALTIC CONCRETE PLANT REPORT

DOTD Form 03-22-3085

DOTD 22-3085 (6/97)
METRIC / ENGLISH

MARSHALL TEST PROPERTIES		DISCHARGE TEMPERATURE	
DOTD TR 304 (1)		DOTD TR 304	
Mass in Air	135.1	AVG	171.0
Mass in Water	65.9	AVG	160
Difference	69.2	AVG	157
Specific Gravity	2.534	AVG	157
Theo Gravity	2.534	AVG	157
Density - LMCU FI	150.9	AVG	157
% Voids	1.4	AVG	157
% AC by Volume	1.4	AVG	157
% VMA	1.4	AVG	157
Dial Reading	150.9	AVG	157
Stability, MN (lb)	150.9	AVG	157
Thickness, mm (in)	150.9	AVG	157
Correction Factor	150.9	AVG	157
Compacted Stability, MN (lb)	150.9	AVG	157
Flow 0.1 (1/100)	150.9	AVG	157
Temp. Taken	150.9	AVG	157
Temp. of Mixture, °C (°F)	150.9	AVG	157

MATT MENU SELECTION - 06		ASPHALTIC CONCRETE PLANT REPORT	
Metric/English	M / E	Location on MATT Menu	
Proj. No.	223-31-008	Plant	H3L2
Proj. No.		Seq. No.	160
Proj. No.		Purp. Code	N.Gradations
Proj. No.		TSR, %	87.1
Proj. No.		Lot Size	15000
Start Date	07-14-97	Weather	P/C
End Date	07-15-97	Temp.: High	33 °C (91 °F)
		Temp.: Low	22 °C (72 °F)

THEORETICAL GRAVITY AND BATCH WEIGHTS (DOTD TR 304)	
MATERIAL	SOURCE
Bit. No. 1	100.0
Bit. No. 2	100.0
Bit. No. 3	100.0
Filler	100.0
Aggregate	100.0
Grade	100.0
TOTAL	100.0

% AC BY IGNITION METHOD (DOTD TR 304)	
Mass of Mixture	100.0
Mass of Trays & Pan	100.0
Total Mass of Mixture	100.0
Correction Factor for Mixture	100.0
Moisture Correction, % (TR 318)	100.0
Mass Loss, %	100.0
AC Content, %	100.0
Dry Total Mass of Aggregate	100.0
Dry Mass After Wash, (TR 309)	100.0
Decantation Loss	100.0
Accumulated Total	100.0
% Difference	100.0
Sample Taken/ Mg (lb)	100.0

GRADATION OF EXTRACTED AGGREGATE	
TEST NO. 1	TEST NO. 2
TEST NO. 3	TEST NO. 4
TEST NO. 5	TEST NO. 6
TEST NO. 7	TEST NO. 8
TEST NO. 9	TEST NO. 10
TEST NO. 11	TEST NO. 12
TEST NO. 13	TEST NO. 14
TEST NO. 15	TEST NO. 16
TEST NO. 17	TEST NO. 18
TEST NO. 19	TEST NO. 20
TEST NO. 21	TEST NO. 22
TEST NO. 23	TEST NO. 24
TEST NO. 25	TEST NO. 26
TEST NO. 27	TEST NO. 28
TEST NO. 29	TEST NO. 30
TEST NO. 31	TEST NO. 32
TEST NO. 33	TEST NO. 34
TEST NO. 35	TEST NO. 36
TEST NO. 37	TEST NO. 38
TEST NO. 39	TEST NO. 40
TEST NO. 41	TEST NO. 42
TEST NO. 43	TEST NO. 44
TEST NO. 45	TEST NO. 46
TEST NO. 47	TEST NO. 48
TEST NO. 49	TEST NO. 50
TEST NO. 51	TEST NO. 52
TEST NO. 53	TEST NO. 54
TEST NO. 55	TEST NO. 56
TEST NO. 57	TEST NO. 58
TEST NO. 59	TEST NO. 60
TEST NO. 61	TEST NO. 62
TEST NO. 63	TEST NO. 64
TEST NO. 65	TEST NO. 66
TEST NO. 67	TEST NO. 68
TEST NO. 69	TEST NO. 70
TEST NO. 71	TEST NO. 72
TEST NO. 73	TEST NO. 74
TEST NO. 75	TEST NO. 76
TEST NO. 77	TEST NO. 78
TEST NO. 79	TEST NO. 80
TEST NO. 81	TEST NO. 82
TEST NO. 83	TEST NO. 84
TEST NO. 85	TEST NO. 86
TEST NO. 87	TEST NO. 88
TEST NO. 89	TEST NO. 90
TEST NO. 91	TEST NO. 92
TEST NO. 93	TEST NO. 94
TEST NO. 95	TEST NO. 96
TEST NO. 97	TEST NO. 98
TEST NO. 99	TEST NO. 100

PERCENT		PASSING		DEV		PERCENT		PASSING		DEV	
83	2 1/2	100	100	100	100	100	100	100	100	100	100
80	2	100	100	100	100	100	100	100	100	100	100
37.5	1 1/2	100	100	100	100	100	100	100	100	100	100
31.5	1 1/4	100	100	100	100	100	100	100	100	100	100
25.0	1	100	100	100	100	100	100	100	100	100	100
18.0	3/4	100	100	100	100	100	100	100	100	100	100
12.5	1/2	100	100	100	100	100	100	100	100	100	100
7.5	3/8	100	100	100	100	100	100	100	100	100	100
4.75	No. 4	100	100	100	100	100	100	100	100	100	100
2.00	No. 10	100	100	100	100	100	100	100	100	100	100
425	No. 40	100	100	100	100	100	100	100	100	100	100
180	No. 80	100	100	100	100	100	100	100	100	100	100
75	No. 200	100	100	100	100	100	100	100	100	100	100
Passing 75 (300)		100	100	100	100	100	100	100	100	100	100
Descent Loss (1)		100	100	100	100	100	100	100	100	100	100
Accum. Total (2)		100	100	100	100	100	100	100	100	100	100

Inspector: _____
 District Lab: _____
 Approved By: _____
 Technician: _____

Asphaltic Concrete Plant Report (03-22-3085) - Continued

The Asphaltic Concrete Plant Report is completed based on plant lot. Space has been provided for five individual projects, since the results of plant testing per lot applies to each project receiving mixture from the lot. Therefore, it is imperative that each project to which mix is delivered from the specified lot be recorded on the form. It is the joint responsibility of the contractor's Certified Technician, the Department's Certified Inspector and the District Laboratory to complete and sign the plant report. Refer to the Sample Identification portion of this manual for Header Information instructions.

The Asphaltic Concrete Plant Report and Asphaltic Concrete Pavement Report (03-22-3080) are used conjunctionally to complete documentation for acceptance of the pavement lot.

Refer to the Department's latest Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures for more detailed instructions and responsibilities.

ASPHALTIC CONCRETE PLANT REPORT			
Metric/English <input checked="" type="checkbox"/> (M) <input type="checkbox"/> (E) Located on MATT Menu			
Proj.No. <u>223-31-0008</u>	Plant <u>H312</u>	Mix Code <u>51</u>	
Proj.No. <u> </u>	Seq. No. <u>160</u>	Lot No. <u>845</u>	
Proj.No. <u> </u>	Purpose Code <u>3</u>	N. Gradations <input type="checkbox"/>	
Proj.No. <u> </u>	TSR, % <u>87</u>	Ten. Str. Control <input type="checkbox"/>	
Proj.No. <u> </u>	Lot Size <u>1500</u>	Act. Lot, Mg (Tons) <u>1508.61</u>	
Start Date <u>07-14-97</u>	Weather: <u>P/C</u>		
End Date <u>07-15-97</u>	Temperature: High <u>33</u> °C(°F) Low <u>22</u> °C(°F)		

Metric / English This entry is located on the MATT Menu and is a required entry. Please note that results must be entered in the proper format based on the reporting unit selected, M or E.

Plant Must represent a valid, certified asphaltic concrete plant. Required entry. Plant Codes are found in the Plant Code portion of this manual.

Mix Code Identifies the type of mix being used. Required numeric entry. Mix Codes are located in the Material Codes portion of this manual.

Seq. No. Assigned by the District Laboratory Engineer. Required entry, numeric, enter leading zeros if necessary. (*Seq. No. is obtained from the Job Mix Formula.*)

Lot No. Established by the Project Engineer. Required entry, first 3 characters are numeric and the last character is alphabetic. Use leading zeros if necessary.

Asphaltic Concrete Plant Report (03-22-3085) - Continued

- N. Gradations** Entered by the District Laboratory. Indicate the Number of Gradations represented. Required entry, numeric, must be 0, 1, 2, or 3.
- TSR, %** Tensile Strength Ratio, % can be obtained from the JMF. Required entry, numeric. Leading zeros may be omitted.
- Ten.Str.Control** Tensile Strength Control can be obtained from the JMF. Required entry, numeric. Leading zeros may be omitted.
- Lot Size** Indicate the Lot Size designated for the plant. Numeric, blanks are permitted and leading zeros may be omitted.
- Weather, Temp** Indicate Weather and Temperature in spaces provided.

MARSHALL TEST PROPERTIES (DOTD TR 304 & TR 305)			1	2	3	4	AVERAGE
Mass in Air	A		1135.1				
Mass in Water	B		665.9				
Difference	C	A - B	469.2				
Specific Gravity	D	A/C	2.419				2.419
Theo Gravity	E	100/L	2.534				
% Theo Gravity	F	D x 100/E	95.5				95.5
Density, kg/m ³ (lb/m ³)	G	D x 62.4	150.9				150.9
% Voids	H	100 - F	4.5				4.5
% AC by Volume	I	DN/K for AC	9.4				
% VMA		H + I	13.9				13.9
% VFA		I/H + I (100)	68				68
Dial Reading			250				
Stability, kN (lb)	From Chart		15.88				
Thickness, mm (in)			5.7				
Correction Factor			0.84				
Corrected Stability, kN (lb)			18.90				18.90
Flow, 0.1 (1/100)			25				25
Sample Taken	mg (Ton) Accum.		99.01				
Temp of Mix, °C (°F)			157				157

Report results in accordance with DOTD TR 304 and TR 305. Computer entry fields for Specific Gravity, % Voids, % VMA, % VFA and Corrected Stability are numeric, blanks are permitted and leading zeros may be omitted. Indicate results of non-computer entries in the spaces provided.

Asphaltic Concrete Plant Report (03-22-3085) - Continued

Extraction results are entered by the District Laboratory in accordance with DOTD TR 307 and TR 308.

DISCHARGE TEMPERATURE		
JMF LIMITS -		
	mg (TONS) ACC.	ACT. TEMP.
1	25.07	160
2	99.01	157
3	268.91	152
4	437.67	160
5	511.95	168
6	634.65	166
7	851.97	157
8	975.24	160
9	1119.97	154
10	1294.91	171
	TEST 1	TEST 2
% MC (AGG)	4.5	4.3
% AC Met/Sc	14.0	14.2
% Anti-Strip	0.16	0.16
% Lime	1.1	1.1

Report the results of the non-computer fields in spaces provided.

JMF Limits obtained from Job Mix Formula.

Enter appropriate results for % MC (AGG). Computer entry fields for % AC Met/Sc, % Anti-Strip and % Lime are numeric. Blanks are permitted and leading zeros may be omitted.

THEORETICAL GRAVITY AND BATCH WEIGHTS (DOTD TR 304)							PERCENT PAY
MATERIAL	SOURCE	% BIN PROP (M)	% (J) M (100 - N)/100	SPEC. GRAV. (K)	SOLID VOL J/K	BATCH MASS, LB	
Bin No. 1	Nov. 1" x 0	AA45	40	38.4	2.71	14.16974	Stability 100
Bin No. 2	Nov. 1" x 0	AA45	35	33.6	2.71	12.39852	
Bin No. 3	C. Sand	A301	18	17.3	2.67	6.47940	Gradation [] [] []
	F. Sand	AG01	7	6.7	2.65	2.52830	
Asphalt	Grade		(N) 4.0	1.03	3.88349		Anti-Strip 100
TOTAL		100	100.0	TOTAL (L)			

Report results of non-computer fields in spaces provided.

Percent Pay: Stability & Gradation - Numeric, must be 100, 98, 95, 80 or 50. Leading zeros may be omitted. Stability or Gradation % Pays allowed only if test results are reported for Stability or Gradation on the Plant Report.

Anti-Strip - Numeric, must be 100, 99, 98, 96, 95, 90, 88 or 80. Leading zeros may be omitted. Anti-Strip % Pay allowed only if test results were entered in the Anti-Strip fields on the Plant Report.

Gradation tests of Extracted Aggregate and % Crushed are entered by the District Laboratory in accordance with DOTD TR 309 and TR 306.

AVERAGES			
SIEVE mm/ μ m	In.	AVERAGE	AVG DEV
63	2 1/2		
50	2		
37.5	1 1/2		
31.5	1 1/4		
25.0	1	100	
19.0	3/4	94	
12.5	1/2	80	3
9.5	3/8	68	
4.75	No. 4	48	
2.00	No. 10	35	
425	No. 40	21	
180	No. 80	13	
75	No. 200	4.8	
% AC		3.8	
% AC M/S		4.0	
% Crushed		100	

Enter the appropriate results. All Sieve Averages are numeric. Blanks are permitted and zeros may be omitted.

For Average Deviation calculation values and Percent Pay, refer to the Contract Specifications and the Department's latest Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures

Technician	<u>Signature</u>	Inspector	<u>Signature</u>
District Laboratory	<u>Signature</u>	Approved By	<u>Signature</u>

All signatures are required as specified in the Department's latest Application of Quality Assurance Specifications for Asphaltic Concrete Mixtures.