

Warm Mix Asphalt Site Report

Job No: Saskatchewan Hwys, Hwy 35
Date (D/M/Y): Oct 6, 7, 2010
Contractor/Agency: Morsky Construction Ltd, Saskatchewan Highways
Location: South of Tisdale, SK, Hwy 35
Job Description: 150/200A w/ Evotherm 3GV

Arrival Time: Various (See notes)
Departure Time: Various (See notes)

Weather Conditions: Partly sunny, light winds, 10-22°C
Total Tonnage: 1,300MT

WMA General Info:

- A/C Type: 150/200A
- A/C Source: MJ Refinery
- Temp. of A/C in Storage Tanks: 140-150°C
- Antistripping Type and Amt: Hydrated Lime, Evotherm 3GV (see notes)
- McAsphalt Ticket No(s): NA- various
- WMA Discharge Temperature: as low as 122°C
- WMA Laydown Temperature: as low as 109°C
- Compaction Equipment Used: DD Vib Break., Rubber Tire interm., Steel Finish



EVOTHERM - Warm Mix Asphalt Site Report

(Cont'd)

**Table 1: General Tack Coat and WMA Checklist
(Re: Bond and Compaction Related Checklist)**

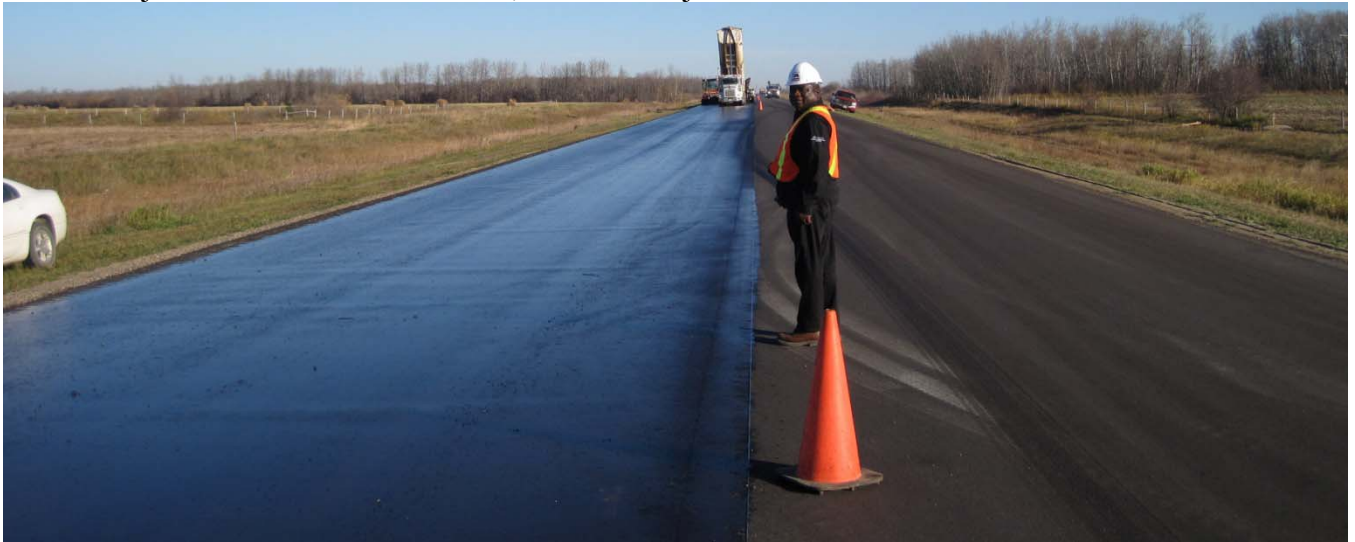
Description of Task	Yes	No	Comments
Was the distributor's application of tack to the existing roadway's surface homogenous? Take note of tack temperature and type.	X		
Were all surfaces clean prior to tacking (longitudinal jts, transverse jts and roadway)?	X		
Were the distributor's spray nozzles between 15 to 30 deg. and all at the same angle?	X		
Was the surface free of signs of moisture?	X		
Were the rollers keeping up with the spreader?	X		
Did the spreader stop frequently to wait for WMA trucks?	X		
Was a shuttle buggy used to promote continuous paving and to ensure a more homogenous heat distribution and better overall compaction?		X	
Were the WMA trucks tarped?		X	

The above checklist focuses only on tack coat issues (i.e. bond issues) and factors which influence compaction and the overall performance of the PG Warm A/C's and polymer modified Warm A/Cs. Other issues such as segregation, profilograph smoothness, mix results, etc, are not directly A/C related and as such are not covered.

McAsphalt Representative: _____ Mark Wiese _____

Warm Mix Asphalt Site Report (Cont'd)

Good tack job! It looks slicker than it is, but the tack job was uniform and well done.



AC was 150/200 with Evotherm 3GV.



Morsky Plant (note the Saskatchewan Highways Lab trailer on the left)

Mixing temps were as low as 122-125c.

Date	Time	Air temp (c)	Wind	Conditions	Mix Temp (c)	Laydown (c)	Min. Compaction temp
06-Oct-10	1:25pm	22	8km	partly sunny	140	130-135	<80c
	3:15pm	22	Light	partly sunny	130	120-125	<80c
	3:50pm	22	Light	partly sunny	130	120-125	<80c
07-Oct-10	9:45am	10	Light	partly sunny	130	110-120	<80c
	12noon	18	Light	partly sunny	122-125	109-120	<80c
							(see notes RE compaction)





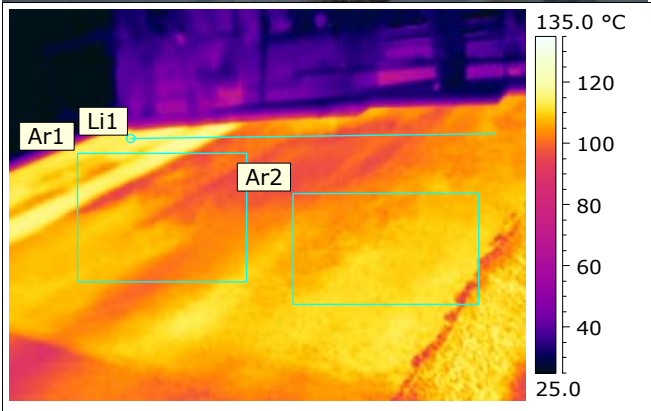
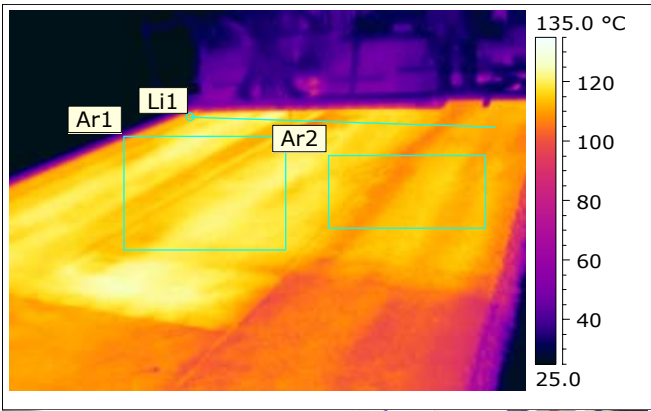
Compaction Equipment used was DDV, rubber tire, steel finish, in that order. Mat thickness was 55mm and hotmix usage was 600 tonnes / km, so they were getting approx. 50m per truck, with no shuttlebuggy / MTV, so there were lots of joints. All Evotherm work (approx. 1300-1400 tonnes) was top lift, virgin mix, no RAP. They were hitting the 97% density target. There was no checking and no segregation.



Sask Highways had a fully functional lab on site, doing cores, extractions etc. Saskatchewan Highways seems to like hydrated lime and claims that they enjoy “field performance improvements” beyond anti-stripping, and it’s perceived to lead to less cracking and rutting. We believe we can demonstrate that Evotherm can replace lime and still deliver the benefits they’re looking for.



Saskatchewan Highways invested in a new Thermal Camera this year, a FLIR T400. Here are some of the pictures they took at the Tisdale Evotherm job. Note the uniformity of mat temperature.



Saskatchewan Highways and Morsky Construction loved working with Evotherm on this project and both said they would definitely use it again.

Another McAsphalt Evotherm Success!