NATIONAL PROFICIENCY TESTING SCHEME UPDATE

25th Roads Pavement Forum
7th May 2013 *Ocean View Hotel, Strand, Western Cape*Barry Pearce



To be discussed

- Revised HMA report
- Pen Bitumen PT scheme
- Z-score issues
- NLA conference
- Other PT schemes planned to 2013



Revised HMA report

- A revised report was issued due to an error in the data copied
 - Thanx to those that read the report & reported up the error
- Only 1 table of info was copied incorrectly
 - No info or deductions were changed in the report
 - All graphical data represented in the 1st report remained unchanged
- Some labs picked up errors in their reporting
 - Errors in numbers copied over onto reports
 - No corrections made for these errors
- **NB!!** This is a PT scheme!
 - Please check you reports carefully before submitting
 - It's a little concerning that it may be happening in day to day reporting



Pen Bitumen PT scheme

- Currently open for registration
 - Closes 13th May 2013
 - 40 samples available
 - Contact Hanlie Badenhorst hanlieb@nla.co.za
- The tests include:
 - Penetration test (ASTM D5) (EN 1426)
 - Softening point test (ASTM D36)
 - Viscosity at 60°C &135°C (ASTM D4402)
 - Rolling thin film oven test (ASTM 2872)
- Also looking at some advanced tests (DSR, PSV) for those labs that have the capabilities
 - Those labs will be approached once they have registered
 - Additional samples to be issued for these tests



Pen Bitumen PT scheme contd

- Samples to be dispatched on 20th May
- Return reports with results & questionnaire
 3rd June
- Raw data released on 10th June
- Final report 6 weeks thereafter
- A BIG thanx to SABITA for sponsoring the 1st HMA & Pen Bit PT Schemes



Z-score issues

 A Z-score is a normalised value which gives a "score" to each result, relative to other numbers in data set

$$Z_i = \frac{x_{i-\overline{x}}}{S}$$

recommendations of SANS 17043:2010 as follows:

• |z| ≤ 2 Satisfactory

2 < |z| < 3 Questionable

• |z| ≥ 3 Unsatisfactory

 Robust indicators include both a Robust Mean & Robust Standard Deviation

Z-score issues ...contd2

- Standard method of std deviation being used as the denominator not that effective in all cases
 - LL range 19 27 all seen as acceptable
 - PL ranged 5 18 only 2 / 14 suspect
 - LS ranged 2 5 all seen as acceptable
 - PI ranged 2 18
 3 / 14 seen as unacceptable
- The 1 question is "will the new SANS 3001 methods assist in reducing this variance?"
 - One would hope so



Z-score issues ...contd3

- Tried using the spec range
 - not that effective in all cases
- Looked at lowering the number per classification
 - Reducing the range of acceptable from 0 2 down to 0 1
 - Also works for some but less effective in others
- Looking for a more acceptable route that will work on all fields in civil labs for PT scheme evaluations
 - soils, asphalt, bit, agg, conc
- The basic approach it to find a process that is effective, meaningful without being overly onerous or unreasonable
- Will be presenting a proposal at the NLA conference



Testo Measurement





Accurate Measurement for Modern Industries & Emerging Technologies

6th – 9th October 2013 Misty Hills Conference Hotel Muldersdrift, Gauteng, South Africa





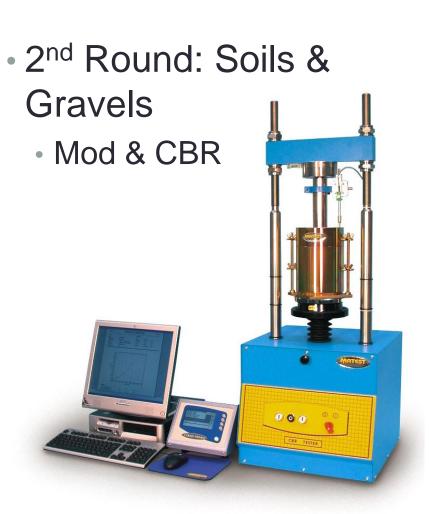
NLA Annual T&M conferencecontd

- A full day for the Civils stream on the Tuesday
- Call for papers on the web
 - http://www.home.nla.org.za/?page_id=68
- 4th year the Civils stream has a session
 - its growing annually
 - Needing your input & attendance
 - Paper on any topic of interest to the lab fraternity





Other PT schemes planned to 2013



3rd Round: Asphalt

To monitor improvements & conversion to SANS 3001



What to look forward to

 Feedback on Pen Bit & may be even HMA or Mod/CBR by next RPF

