SEASONAL MONITORING PROGRAM
DISMANTLE REPORT
SITE 040113, KINGMAN, ARIZONA

January 1997

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MEMORANDUM

TO: Mr. Aramis Lopez, Jr.
Long-Term Pavement Performance Division
FROM: Srikanth S. Holikatti and Douglas J. Frith
DATE: January 31, 1997
SUBJECT: **Suspension of SMP Site Monitoring Activities, Site 040113**

This memo will serve as the SMP Site Monitoring Suspension Status Report for Site 040113 (04SA) near Kingman, Arizona. This report narrates the activities associated with the suspension of SMP site monitoring.

The site was last monitored on August 14, 1996 and de-installation occurred at this time. The following activities were performed before suspension of SMP monitoring activities and dismantling of SMP instrumentation:

- FWD testing of the section.
- Transverse profile by dipstick.
- Elevation measurements.
- Ground water table measurements.
- Automated mobile data collection.
- Downloading of Onsite data before dismantling the CR10 data logger.

Longitudinal profile measurements were performed on August 10, 1996 using the K J Law profilometer.

The following pre-dismantle and dismantle activities were performed:

- The observation well and cap threads were thoroughly cleaned and lubricated (greased) before the well was sealed.

- The air temperature probe and rain gauge were disconnected from the steel pole and the pole was removed from the bottom joint. The pole stub, embedded in the ground, was cleaned and lubricated before capping.

- The instrumentation hole and access trench were both closely inspected and the joints were resealed with a silicone sealant wherever necessary. No further patching was required.

- All TDR probes, thermistor temperature sensor unit cables and wiring were disconnected from the CR10 data logger. These were carefully checked and labeled. The labels were scotch taped to each cable to ensure they would remain in place.

- A coat of electronics grade anticorrosive compound was applied to all cables and wiring connections to protect against corrosion of contact points. The cables were put in a heavy duty plastic bag and taped to keep the elements out. They were then secured inside the equipment cabinet.

- The instrument panel board containing the CR10 data logger, the relay and the terminal strip was removed.

- The equipment cabinet was checked and adequate drainage was ensured in case of heavy precipitation.

- The equipment cabinet lock was lubricated with graphite lubricant. The lock also was taped to keep out the natural elements.

- Nails were driven into the pavement at the elevation measurement and FWD test locations. The nailheads were spray painted white for easy identification.

- A layout sketch of the section showing the location of the instrumentation hole, observation hole, equipment cabinet, FWD test points and elevation measurement points was drawn to facilitate easy re-establishment of the site upon return.

The instrumentation hole is located in the outside lane, at a distance of 157.32m (section station 5.00+16'), from the section beginning, in the outer wheel path. The equipment cabinet is located 9.6m to the right of the lane edge and the pole is 0.3m behind the equipment cabinet. The observation well/piezometer is located at a distance of 121.95m from the start of the section, 5.2m away from the lane edge. Please refer to the site layout schematic for the testing and monitoring

locations within the test section.

The following are enclosed with this report:

- A summary table of SMP measurements over the preceding data collection cycle following the standard format.
- Section layout schematic clearly showing the location of the instrument hole, observation well, equipment cabinet FWD test points and elevation measurement locations.
- Copies of photographs taken during the suspension and dismantle activities.
- TDR traces manually obtained just before the instrument panel board was dismantled.
- Plots from SMPCheck software program illustrating unresolved sensor problems.

The summary table indicates numerous problems with the mobile box and other equipment. Four months of precipitation, air and pavement temperature data were not collected. In addition, manual TDR traces were required numerous times. During the month of March, when the 1502B was not functioning, TDR data was not collected. From the enclosed SMPCheck plots, it was observed that the TDR sensor 1 trace has no clear minimum and maximum points unlike the other nine TDR traces during de-installation. All connections were checked and still a typical trace could not be obtained.

No unusual or non-standard equipment or wiring was utilized on this site. However it should be noted, no resistivity probe was installed. Only a limited number of resistivity probes were supplied by FHWA and due to the climate, this site did not receive one.

Information in this report and its attachments are provided to document the SMP suspension and dismantle activities guidelines. Any further information about suspension/dismantle activities can be obtained by calling Nichols Consulting Engineers at (702)329-4955.

SH:DF/cac
Attachments

cc: Gonzalo Rada
Cal Berge

SUMMARY of SMP DATA COLLECTED to DATE.

Agency Code: 04, Arizona.

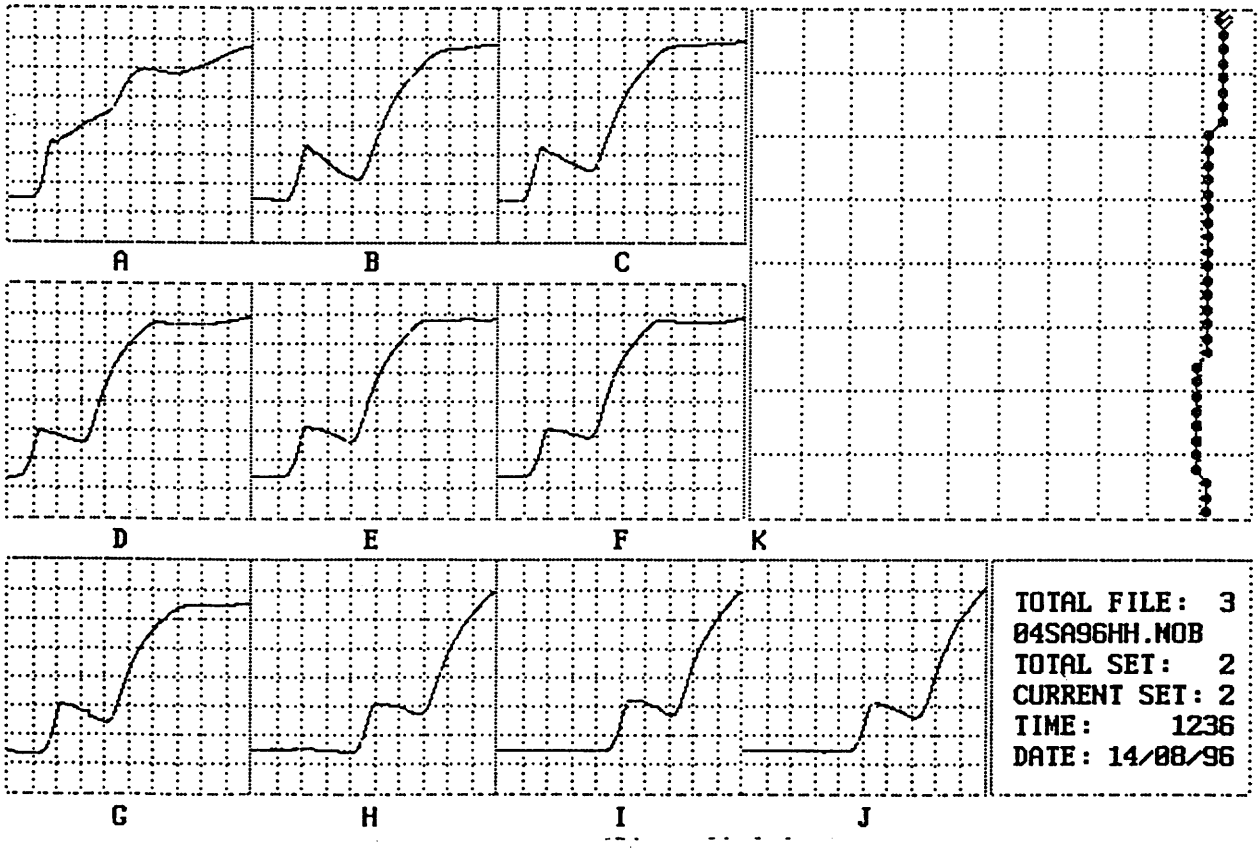
Location: Kingman

LTPP Section Code: 0113.

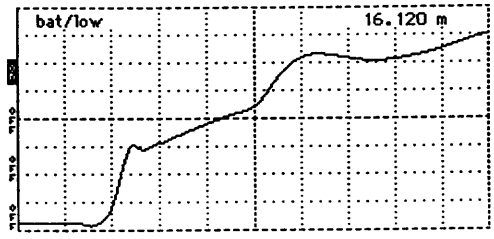
Pavement Type: Asphalt concrete.

		ONSITE Data			MOBILE Data.		Manual Data				F W D Data				Distress Data		Profile Data		
Test Date dd/mm/yy	Visit Identity \ Code	Pav Temp	Ambient Temp	Precptn.	Subsurface Moisture (TDR)	Frost Depth 2-Point	Backup Pav Temp	Backup Moisture (TDR)	Water Table.	Surface Elev.	Surface Layer Temp.	No. of Cycles/Visit. OWP	ML	PE	Manual	PASCO	Profiler	Dipstick	Comments
16-Aug, 95	NA	X	X	X	X	NA		X	X	X	X	2	2	NA	X	X			PASCO was carried out on 30-Mar, 95
13-Sep, 95	A	X	X	X	NA	NA			X		X	4	4	NA					
11-Oct, 95	B				X	NA			X		X	5	5	NA					
08-Nov, 95	C				X	NA			X	X	X	3	3	NA	X			X	
06-Dec, 95	D				X	NA			X		X	4	4	NA			X		
10-Jan, 96	A*	X	X	X	X	NA			X		X	5	5	NA					
07-Feb, 96	B*	X	X	X	X	NA			X	X	X	5	5	NA	X			X	
06-Mar, 96	C*	X	X	X		NA			X		X	5	5	NA					1502 B is out of order.
03-Apr, 96	D	X	X	X		NA		X	X	X	X	3	3	NA	X			X	Mobile Box is Down.
09-May, 96	E					NA		X	X		X	5	5	NA					New CR10X Program.
11-Jun, 96	F	X	X	X	X	NA			X		X	2	2	NA					FWD down for a day.
10-Jul, 96	G	X	X	X	X	NA			X	X	X	4	4	NA	X			X	
14-Aug, 96	H	X	X	X	X	NA		X	X	X	X	5	5	NA			X		De-install.

A*, B* & C*= Unexplainable spikes in Thermistor #2 temperature, causes unknown.

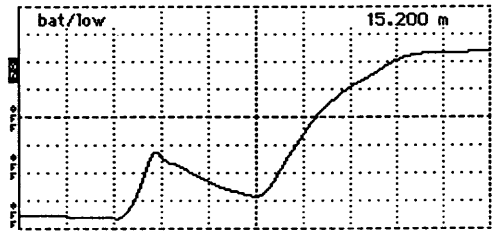

A
B
C
D
E
F
K
G
H
I
J
TOTAL FILE: 3
04SA96HH.MOB
TOTAL SET: 2
CURRENT SET: 2
TIME: 1236
DATE: 14/08/96

Cursor ..... 16.120 m
Distance/Div..... .25 m/div
Vertical Scale.... 72.7 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... bat/low



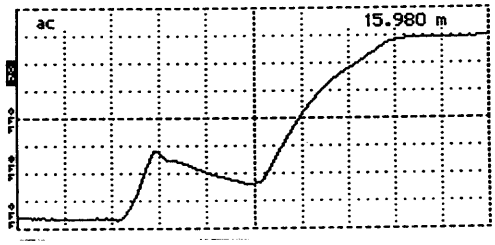
Tektronix 1502B TDR
Date 8/14/96
Cable #1 040113
Notes Might Need Looking Into Next Time Around.
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.200 m
Distance/Div..... .25 m/div
Vertical Scale.... 83.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... bat/low



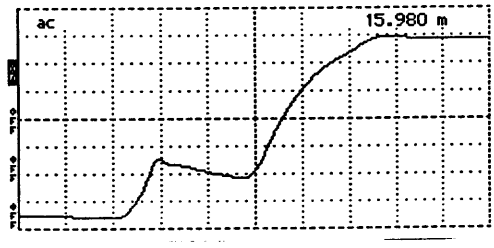
Tektronix 1502B TDR
Date 8/14/96
Cable #2 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.980 m
Distance/Div..... .25 m/div
Vertical Scale.... 83.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



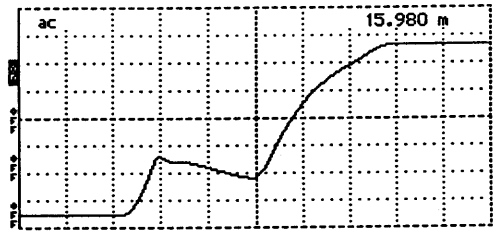
Tektronix 1502B TDR
Date 8/14/96
Cable #3 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.980 m
Distance/Div..... .25 m/div
Vertical Scale.... 96.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



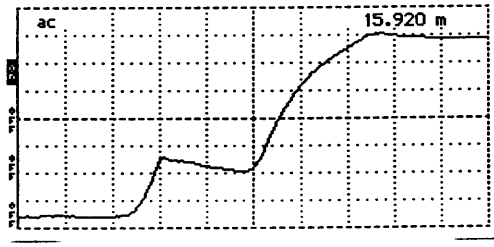
Tektronix 1502B TDR
Date 8/14/96
Cable #4 040113
Notes Look Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.980 m
Distance/Div..... .25 m/div
Vertical Scale.... 96.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



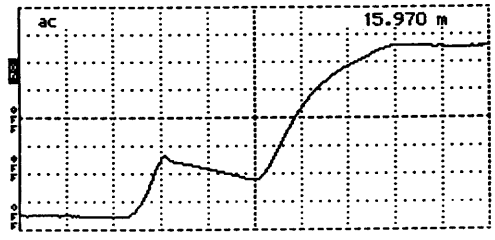
Tektronix 1502B TDR
Date 8/14/96
Cable #5 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.920 m
Distance/Div..... .25 m/div
Vertical Scale.... 96.9 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



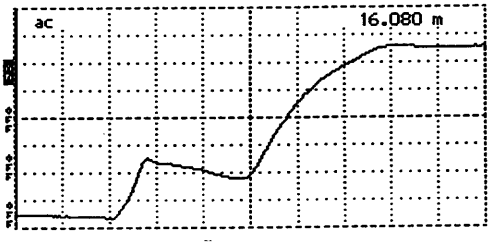
Tektronix 1502B TDR
Date 8/14/96
Cable #6 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.970 m
Distance/Div..... .25 m/div
Vertical Scale.... 96.9 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



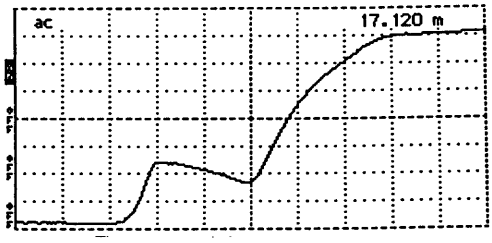
Tektronix 1502B TDR
Date 8/14/96
Cable #7 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 16.080 m
Distance/Div..... .25 m/div
Vertical Scale.... 96.9 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



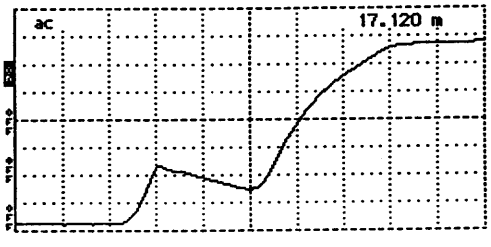
Tektronix 1502B TDR
Date 8/14/96
Cable #8 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 17.120 m
Distance/Div..... .25 m/div
Vertical Scale.... 83.9 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



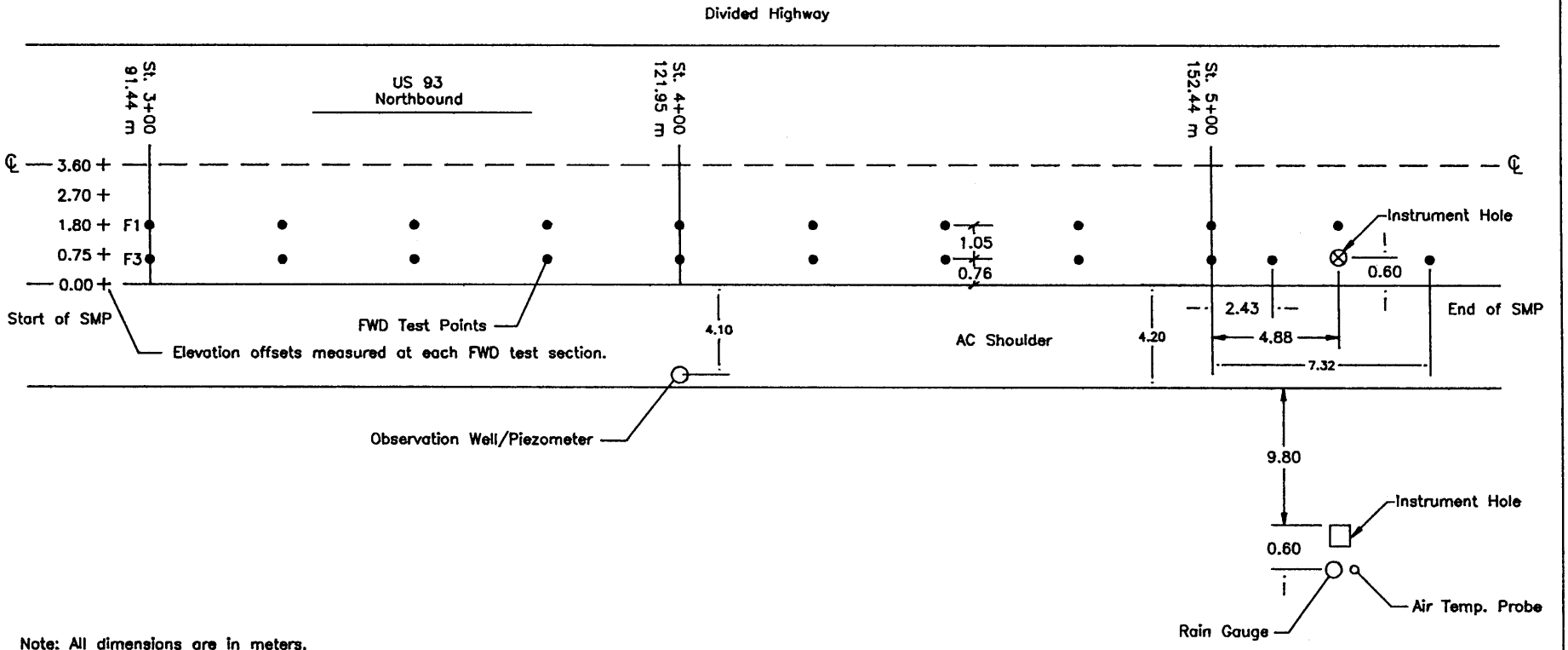
Tektronix 1502B TDR
Date 8/14/96
Cable #9 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

Cursor ..... 17.120 m
Distance/Div..... .25 m/div
Vertical Scale.... 83.9 mρ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/14/96
Cable #10 040113
Notes Looks Good
Input Trace
Stored Trace
Difference Trace

SECTION 040113
Kingman, AZ



Note: All dimensions are in meters.

Instrumentation Hole.

Observation Piezometer.

Taped Cable-ends.

Equipment Cabinet.