SEASONAL MONITORING PROGRAM
DISMANTLE REPORT
SITE 533813, CAMAS, WASHINGTON.

January 1997

NICHOLS CONSULTING ENGINEERS, Chtd.

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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 533813.**

This memo will serve as the SMP Site Monitoring Suspension Status Report for Site 533813 (53SA) near Camas, Washington. This report narrates the activities associated with the suspension of SMP site monitoring.

The site was last monitored on August. 28, 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.
- Elevation measurements.
- Ground water table measurements.
- Joint opening and joint faulting measurements.
- Automated mobile data collection.
- Downloading of Onsite data before dismantling the CR10 datalogger.

Longitudinal profile measurements were performed on August 29, 1996 using a 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 sealed with silicone sealant wherever necessary. No further patching was required.
- All TDR probes, thermistor temperature sensor unit cables and wiring were disconnected from the CR10 datalogger. These were carefully checked and labeled. The labels on each cable were scotch taped to ensure they would remain in place.
- A coat of electronics grade anti-corrosive compound was applied to the cables and wiring connections to protect against corrosion of contact points. The cables were then put in a heavy duty plastic bag and were taped to keep out the elements. They were then secured inside the equipment cabinet.
- The instrument panel board containing the CR10 datalogger, 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 was taped to keep out the natural elements.
- The deflection and elevation measurement locations were marked with white paint for easy identification.
- A layout sketch of the section indicating the location of the instrumentation hole, observation well, equipment cabinet, joint opening measurement snap rings, FWD test points and elevation measurement points was drawn so that, the site can be re-established easily upon return.

The instrumentation hole is located in the outside lane, a distance of -6.8m (section station 0.00-22') before the section beginning, in the outer wheel path. The equipment cabinet is located 6.3m 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 30.5m from the start of the section., 4.5m right of 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, joint opening FWD test locations 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.

The data collection summary table indicates three months for which no TDR measurements were collected. During these visits automated data was believed to have been collected, although later evaluation indicated poor traces. Other minor deficiencies can be noted, however, in general, a complete set of data was collected at this site for a complete year.

During the monitoring cycle, the instrumentation hole required re-patching. Re-patching was performed by WsDOT personnel. While WsDOT was correcting the patch, the top temperature sensor in the pavement was damaged. Therefore no further data has been recorded for this sensor. In addition, the last two rounds of data collection indicate that all three of the pavement sensors are now malfunctioning. These sensors will need retrofitted prior to the commencement of data collection.

No unusual or non standard equipment or wiring was utilized on this site. Although 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. 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: 53, Washington.

Location: Camas. Washington.

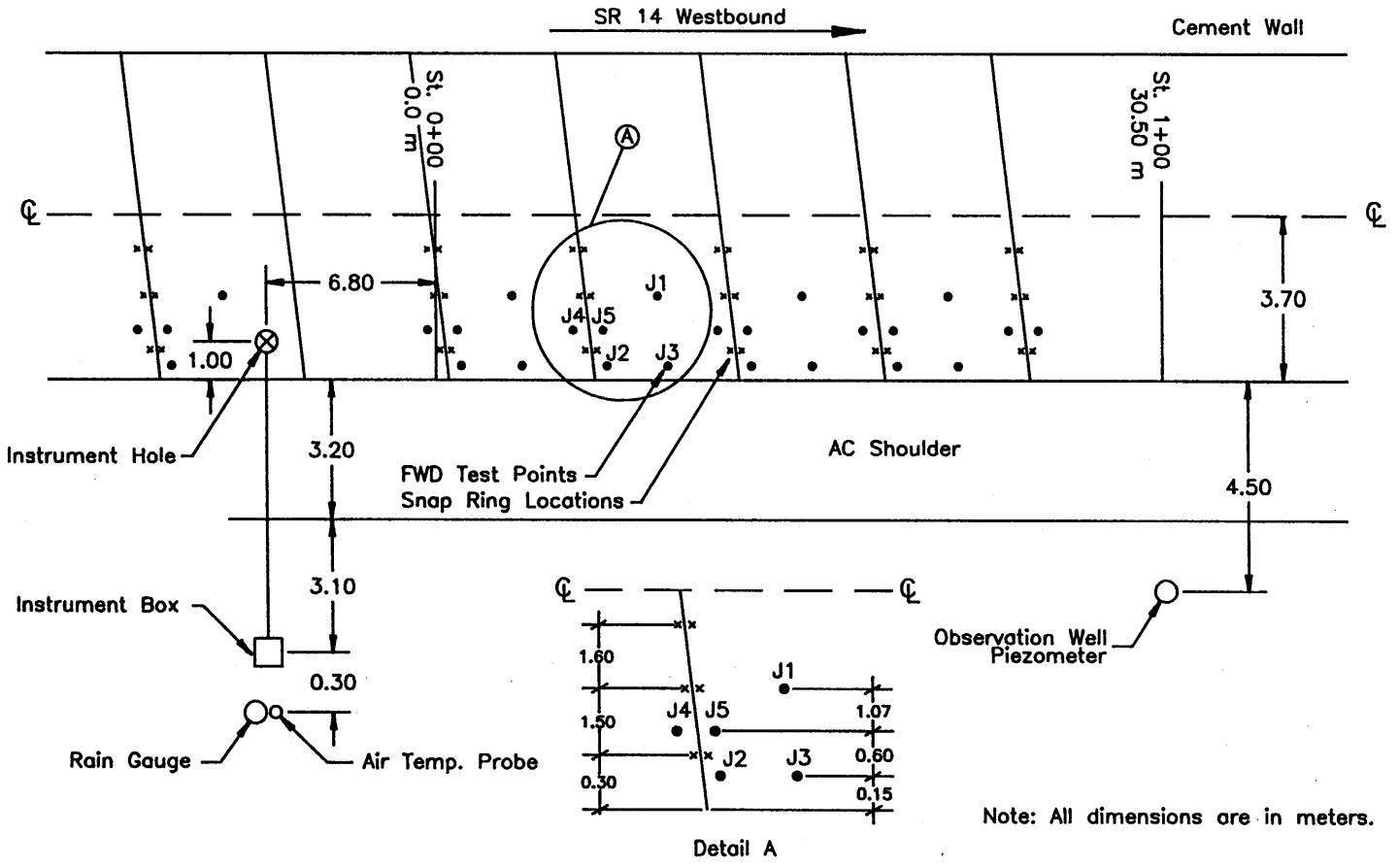
LTPP Section Code: 3813.

Pavement Type: Portland Cement 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.	Joint Open.	Joint Fault.	Surface Layer Temp.	No. of Cycles/Visit. OWP	ML	PE	Manual	PASCO	Profiler	Dipstick	Comments
18-Jul, 95	NA	X	X	X	X	NA		X	X	X	X	X	X	2	2	2					
25-Sep, 95	A	X	X	X	X	NA		X	X		X	X	X	2	2	2					No Mobile Data.
30-Oct, 95	B				X	NA			X		X	X	X	3	3	3					TDR 8 through 10, Non-Typical trace.
20-Nov, 95	C	X	X	X	X	NA			X	X	X	X	X	2	2	2	X		X		
18-Dec, 95	D	X	X	X	X	NA			X		X	X	X	2	2	2					
22-Jan, 96	A	X	X	X	X	NA			X		X	X	X	3	3	3					
21-Feb, 96	B	X	X	X	X	NA			X	X			X	2	2	2					TDR 1 & 2 Non-Typical Trace.
18-mar, 96	C	X	X	X		NA			X		X	X	X	4	4	4			X		
17-Apr, 96	D	X	X	X		NA			X		X	X	X	2	2	2	X				
22-May, 96	E	X	X	X	X	NA			X		X	X	X	2	2	2			X		Partial TDR traces.
25-Jun, 96	F	X	X	X	X	NA			X		X	X	X	1	1	1	X				
29-Jul, 96	G	X	X	X	X	NA			X	X	X	X	X	3	3	3					Onsite Data: no pavement Temperature
28-Aug, 96	H	X	X	X	X	NA		X	X	X			X	2	2	2	X		X		Onsite Data: no pavement Temperature.

Form: Datatrack, SMP.

SECTION 533813
Camas, WA



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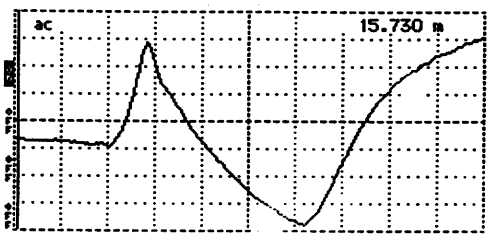
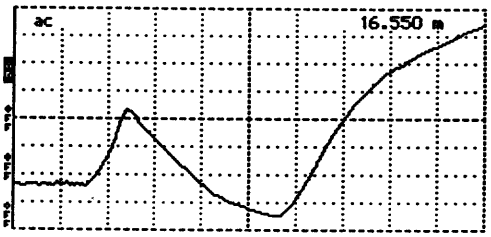
Vertical Scale.... 43.3 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tek onix 1502B TDR
Date 8/28/96
Cable #1 533813
Notes Looks Good.

Input Trace
Stored Trace
Difference Trace

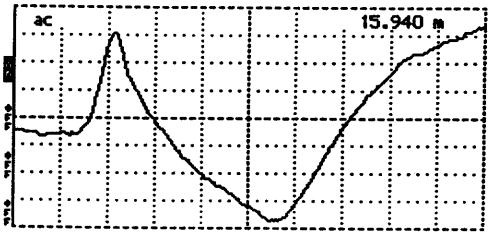
Cursor ..... 16.550 m
Distance/Div..... .25 m/div
Vertical Scale.... 47.2 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #2 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

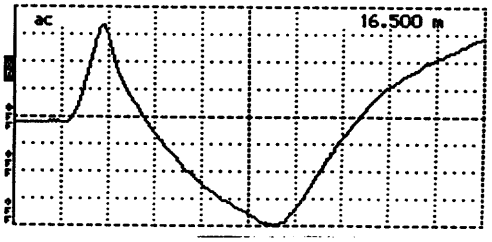
Cursor ..... 15.940 m
Distance/Div..... .25 m/div
Vertical Scale.... 45.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #3 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

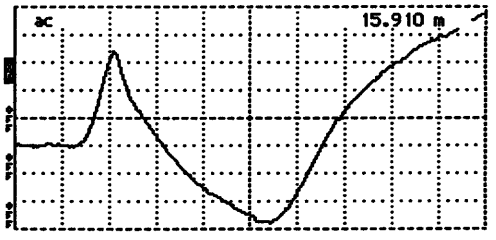
Cursor ..... 16.500 m
Distance/Div..... .25 m/div
Vertical Scale.... 45.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #4 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

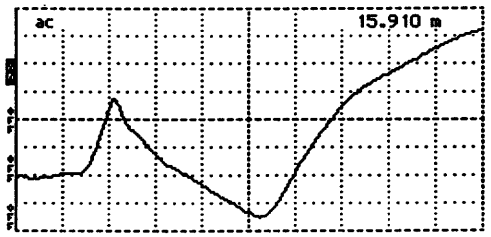
Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 50.0 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #5 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

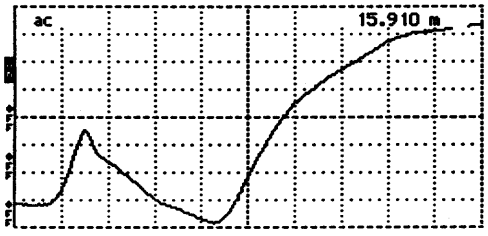
Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 62.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #6 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

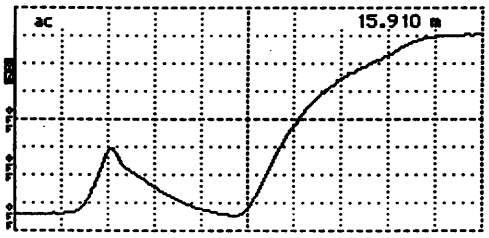
Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 66.7 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #7 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

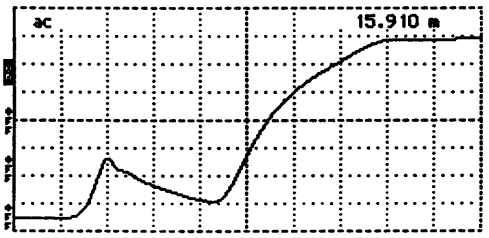
Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 77.0 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #8 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

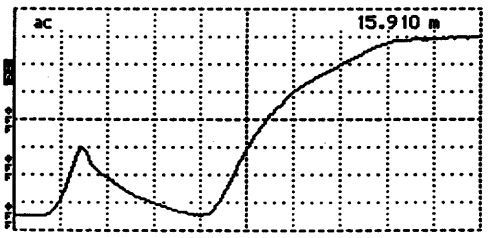
Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 88.9 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac



Tektronix 1502B TDR
Date 8/28/96
Cable #9 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

Cursor ..... 15.910 m
Distance/Div..... .25 m/div
Vertical Scale.... 77.0 mΩ/div
Vp 0.99
Noise Filter..... 1 avg
Power..... ac

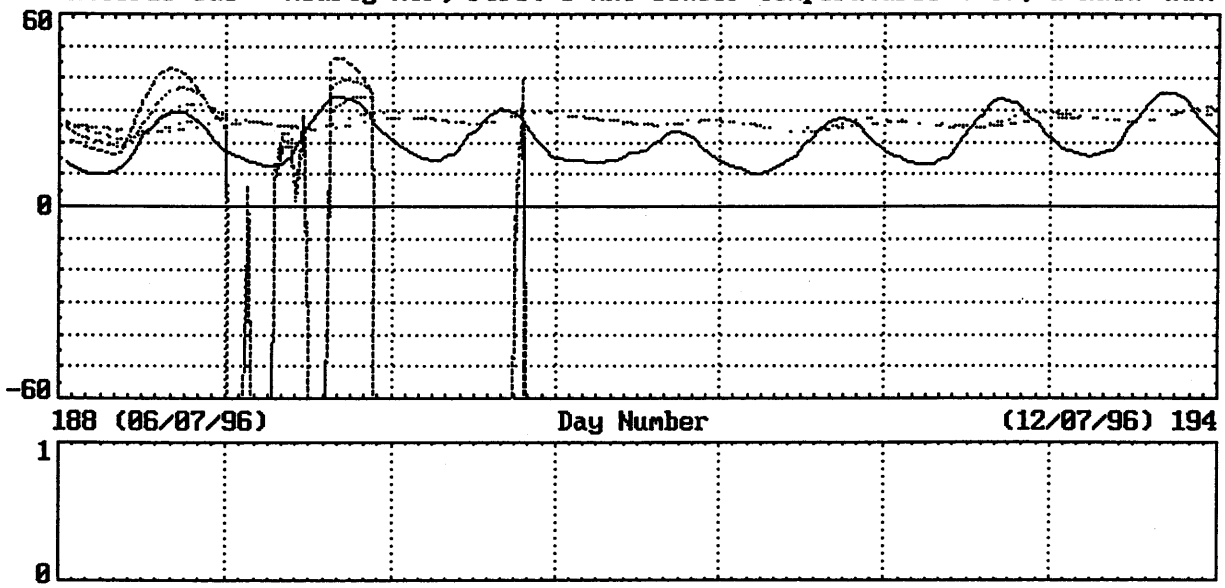


Tektronix 1502B TDR
Date 8/28/96
Cable #10 533813
Notes Looks Good

Input Trace
Stored Trace
Difference Trace

Washington Site: A

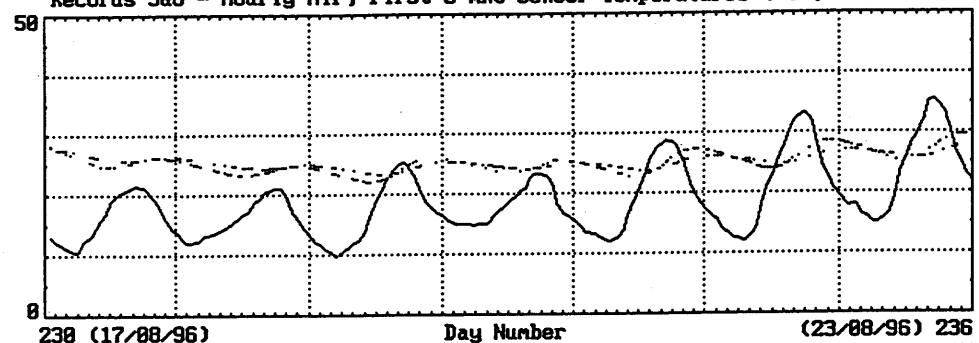
Records 5&6 - Hourly Air, First 5 MRC Sensor Temperatures (°C), & Rain (mm)



Legend	Start	Day	Time	Selected	End	Day	Time	Selected	Value
AirT	0	188	100		0	195	000		
MRC1	1	188	100		1	195	000		
MRC2	2	188	100		2	195	000		
MRC3	3	188	100		3	195	000		
MRC4	4	188	100		4	195	000		
MRC5	5	188	100		5	195	000		
Rain	6	188	100		6	195	000		

Washington Site: A

Records 5&6 - Hourly Air, First 5 MRC Sensor Temperatures (°C), & Rain (mm)

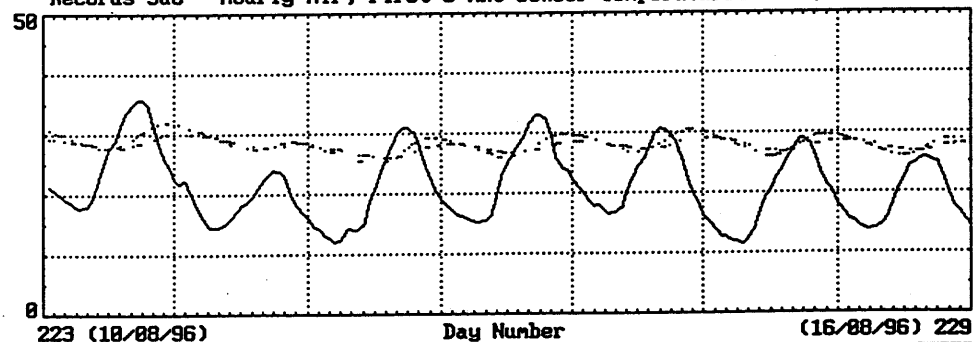


Legend	Start	Day	Time	Selected	End	Day	Time	Selected	Value
AirT	0	230	100		0	237	000		
MRC1	1	230	100		1	237	000		
MRC2	2	230	100		2	237	000		
MRC3	3	230	100		3	237	000		
MRC4	4	230	100		4	237	000		
MRC5	5	230	100		5	237	000		
Rain	6	230	100		6	237	000		

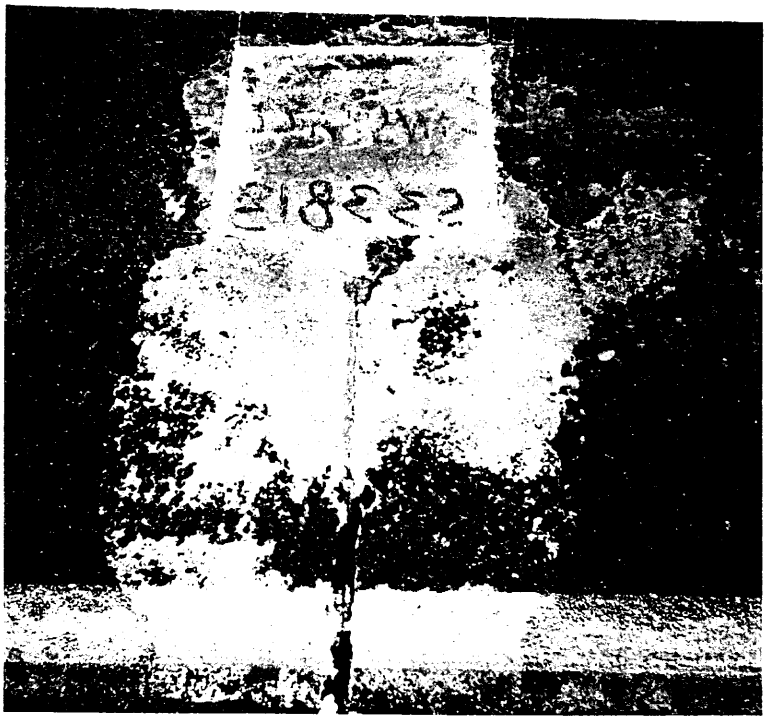
Esc=Menu; PgUp,PgDn=Prior/Next Week; F8,F9=Edit; Ctrl+F10=Remove; F2=PrintScreen

Washington Site: A

Records 5&6 - Hourly Air, First 5 MRC Sensor Temperatures (°C), & Rain (mm)



Legend	Start	Day	Time	Selected	End	Day	Time	Selected	Value
AirT	0	223	100		0	230	000		
MRC1	1	223	100		1	230	000		
MRC2	2	223	100		2	230	000		
MRC3	3	223	100		3	230	000		
MRC4	4	223	100		4	230	000		
MRC5	5	223	100		5	230	000		
Rain	6	223	100		6	230	000		



Instrumentation Hole.

Observation Piezometer.

Taped Cable-ends.

Equipment Cabinet.