



February 20, 2025

Stantec  
801 Jones Franklin Road, Suite 300  
Raleigh, North Carolina 27606

Attention: Mr. Ricky Greene, PE  
Senior Project Manager

Reference: **Pavement and Subgrade Investigation Report**  
**NC 9 from US 74 Alt to Henderson/Buncombe County Line**  
**Bat Cave**  
Henderson County, North Carolina  
TIP No. W-0920  
S&ME Project No. 24350796  
NC PE Firm License No. F-0176

S&ME has completed the evaluation of the pavement and subgrade investigation for this project and presents the following.

The proposed work consists of repairing NC-9 from US 74 Alt to the Henderson/Buncombe County line and the associated grading and pavement work.

The subgrade beneath the existing roadway consists of Inner Piedmont residual soils and roadway embankment soils. The predominant soils encountered were classified as sandy silt (A-4) and silty sand (A-2-4).

Anticipated borrow will likely consist of Inner Piedmont sandy silt and silty sand.

The length of this project is 1.967 miles.

Overall, the pavement for -L- is in fair to poor condition. Pavement surface distresses are characterized as low severity transverse cracking and low to moderate severity fatigue cracking, with few areas exhibiting moderate severity longitudinal cracking and high severity fatigue cracking.



**AREAS OF SPECIAL GEOTECHNICAL INTEREST**

**A. Highly Plastic Clays:**

There were no locations where clays with a PI of 26 or greater were found.

**B. Trapped Water within the Pavement:**

There were no locations where trapped water within the pavement was found.

**C. Soils with a High Moisture Content**

There were no locations where soils with high moisture content were found.

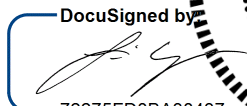
**D. Pavements which Have Been or May Have Been Damaged**

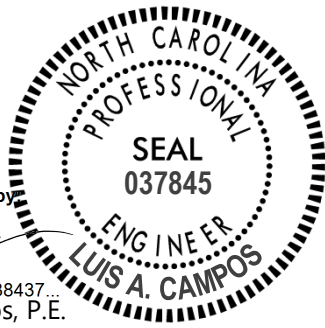
The following locations are areas where the landslides/debris flows have destroyed pavements or likely compromised the integrity of the pavements, or where water flow along shoulders has undermined the pavement section.


LINE	STATION RANGE
-L-	10+00 to 34+00
-L-	50+00 to 54+00
-L-	68+00 to 71+50
-L-	76+00 to 85+00

LAC/SEM/KHH

ATTACHMENT 1: Pavement and Subgrade Inventory 22

DocuSigned by  
  
72275FD8BA38437...  
Luis A. Campos, P.E.  
Senior Geotechnical Engineer



  
Stacie E. Mitchell P.E.  
Senior Geotechnical Engineer

PROJECT: 18314.1045035

REFERENCE: W-0920

CONTENTS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	PLAN SHEET LAYOUT
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STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

ROADWAY

SUBSURFACE INVESTIGATION

COUNTY HENDERSON

PROJECT DESCRIPTION GRADING, DRAINAGE, PAVING,  
AND RETAINING WALLS

PAVEMENT AND SUBGRADE INVENTORY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-0920	1	22

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF PREPARING THE SCOPE OF WORK TO BE INCLUDED IN THE REQUEST FOR PROPOSAL. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (919) 707-6850. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

SOIL AND ROCK BOUNDARIES WITHIN A BOREHOLE ARE BASED ON GEOTECHNICAL INTERPRETATION UNLESS ENCOUNTERED IN A SAMPLE. INTERPRETED BOUNDARIES MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN SAMPLED STRATA AND BOREHOLE INFORMATION MAY NOT NECESSARILY REFLECT ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE, OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO PERFORM INDEPENDENT SUBSURFACE INVESTIGATIONS AND MAKE INTERPRETATIONS AS NECESSARY TO CONFIRM CONDITIONS ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES:
- THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT.
  - BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

PERSONNEL

C. COGDILL

C. PAYNE

L. CAMPOS

INVESTIGATED BY S&ME, INC.

DRAWN BY C. CHANDLER

CHECKED BY K. HILL

SUBMITTED BY L. CAMPOS

DATE FEBRUARY 2025



8848 RED OAK BLVD  
SUITE A  
CHARLOTTE, NC 28217  
(704) 523-4726



DocuSigned by:

72275FD8BA38437... 2/20/2025

SIGNATURE DATE

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

**GEOTECHNICAL ENGINEERING UNIT**

## SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

DATE: 8-15-14



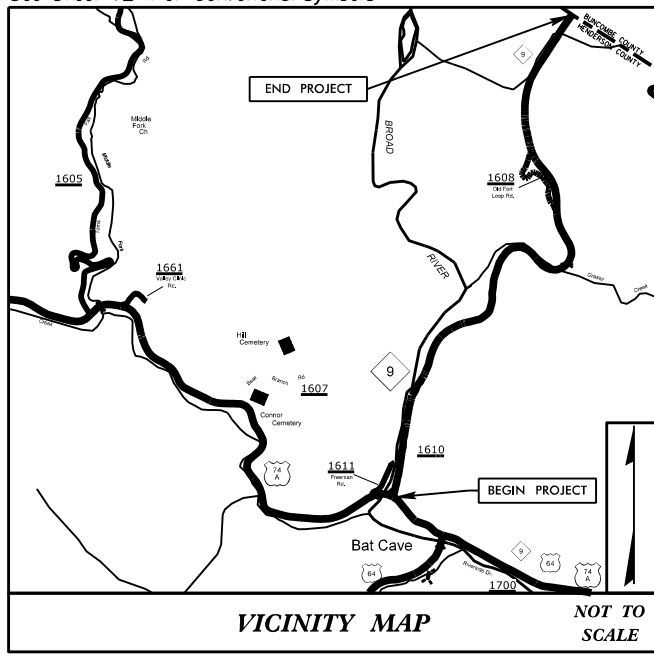
09/08/99

\$\$\$SYTIME\$\$\$\$\$DDN\$\$\$\$\$USERNAME\$\$\$\$\$

TIP PROJECT: W-0920

CONTRACT: ???

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols



VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

HENDERSON COUNTY

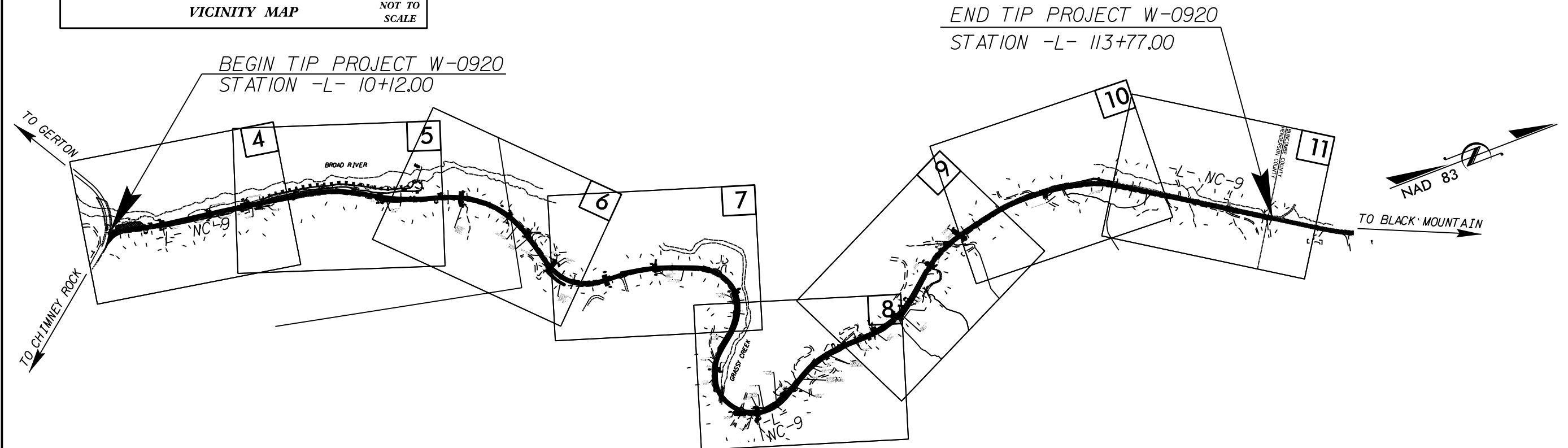
LOCATION: NC-9 FROM US 74 ALT TO  
HENDERSON/BUNCOMBE COUNTY LINE

TYPE OF WORK: GRADING, DRAINAGE,  
PAVING, AND RETAINING WALLS

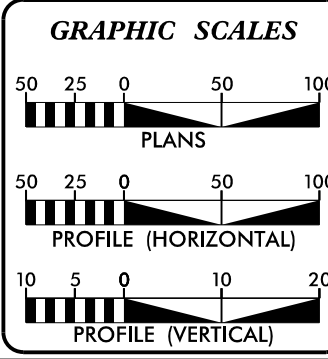
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-0920	3	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
18314.1045035		PE	



PRE-HYDRO PLAN SET



DESIGN EXCEPTION FOR SPEED, HORIZONTAL CURVATURE AND HORIZONTAL SIGHT DISTANCE(?)  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III  
THIS IS A NO CONTROL OF ACCESS PROJECT



DESIGN DATA	
ADT 2025 =	1000
K =	N/A
D =	N/A
T =	7%
V =	45 MPH
FUNC CLASSIFICATION =	MAJOR COLLECTOR REGIONAL TIER

PROJECT LENGTH	
LENGTH ROADWAY TIP PROJECT W-0920	= 1.967 MILES
TOTAL LENGTH TIP PROJECT W-0920	= 1.967 MILES

PREPARED IN THE OFFICES OF:  
**SUNGATE DESIGN GROUP, P.A.**

Stantec  
801 Jones Franklin Road  
Suite 300  
Raleigh, NC 27606  
Tel. (919) 351-6866  
Fax. (919) 851-7024  
www.stantec.com  
License No. F-0872

8848 RED OAK BLVD  
SUITE A  
CHARLOTTE, NC 28217  
(704) 523-4726

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2024 STANDARD SPECIFICATIONS  
3R GUIDELINES

RIGHT OF WAY DATE:  
JANUARY 1, 2025

LETTING DATE:  
MARCH 14, 2025

STEVE SMALLWOOD, P.E.  
PROJECT ENGINEER

A. DEAN SARVIS, P.E.  
PROJECT DESIGN ENGINEER

JOSH B DEYTON, P.E.  
NCDOT DIVISION 14 CONTACT

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_

ROADWAY ENGINEER

SIGNATURE: \_\_\_\_\_

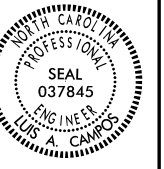
Professional Engineer Seal for Joshua G. Dalton, North Carolina, License No. 26971.

Professional Engineer Seal for Stephen T. Smallwood, North Carolina, License No. 022037.

Seal of the State of North Carolina, Department of Transportation.



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-0920	4
RW SHEET NO.	
GEOTECHNICAL ENGINEER	HYDRAULICS ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-L-	
PI Sta 13+93.30	PI Sta 19+00.48
$\Delta = 414' 52.0"$ (LT)	$\Delta = 107' 42.6"$ (RT)
D = 2' 41' 41.7"	D = 0' 41' 55.4"
L = 151.98'	L = 161.51'
T = 76.03'	T = 80.76'
R = 2,050.00'	R = 8,200.00'
SE = .02	SE = .02

NAD 83

MATCHLINE -L- STA 21+00  
SEE SHEET 5

BEGIN TIP PROJECT W-0920  
-L- STA 10+12.00

SYTIME\$\$\$\$\$  
\$\$\$\$\$SYTIME\$\$\$\$\$







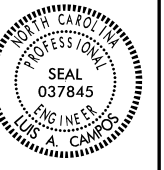




8/17/99

# NCDOT SITE 3



PROJECT REFERENCE NO. <b>W-0920</b>		SHEET NO. <b>7</b>
RW SHEET NO.		
GEOTECHNICAL ENGINEER	HYDRAULICS ENGINEER	
		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

MATCHLINE -L- STA 46+00  
SEE SHEET 6

-L- 51+00 SB LT	
Pavement Structure	
Asphalt	6.25"
Gravel	6"
-L- 51+00 SB RT	
Pavement Structure	
Asphalt	6.25"
Gravel	6"

-L- 51+00 SB LT  
-L- 51+00 SB RT

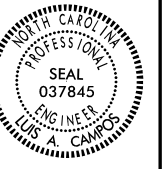
MATCHLINE -L- STA 60+00  
SEE SHEET 8

-L- 60+00 SB	
Pavement Structure	
Asphalt	8"
Gravel	5"



8/17/99

MATCHLINE -L- STA 60+00 SEE SHEET 7

PROJECT REFERENCE NO.		SHEET NO.	
W-0920		8	
RW SHEET NO.		HYDRAULICS ENGINEER	
GEOTECHNICAL ENGINEER		ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NAD 83

MATCHLINE SEE SHEET 9  
STA 60+00

NCDOT  
SITE 4

-L- 77+00 SB	
Pavement Structure	
Asphalt	9"
Gravel	5"

-L- 65+00 SB	
Pavement Structure	
Asphalt	9.75"
Gravel	15"

-L- 74+00 SB LT		-L- 74+00 SB RT	
Pavement Structure		Pavement Structure	
Asphalt	8.5"	Asphalt	8.75"
Gravel	6"	Gravel	6"

-L- 72+00 SB	
Pavement Structure	
Asphalt	9"
Gravel	5"

-L- 69+00 SB	
Pavement Structure	
Asphalt	8.5"
Gravel	4"

NCDOT  
SITE 5

SYTIME\$\$\$\$\$  
\$\$\$\$\$SYTIME\$\$\$\$\$






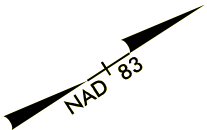






8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
W-0920		11	
RW SHEET NO.			
GEOTECHNICAL ENGINEER		HYDRAULICS ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

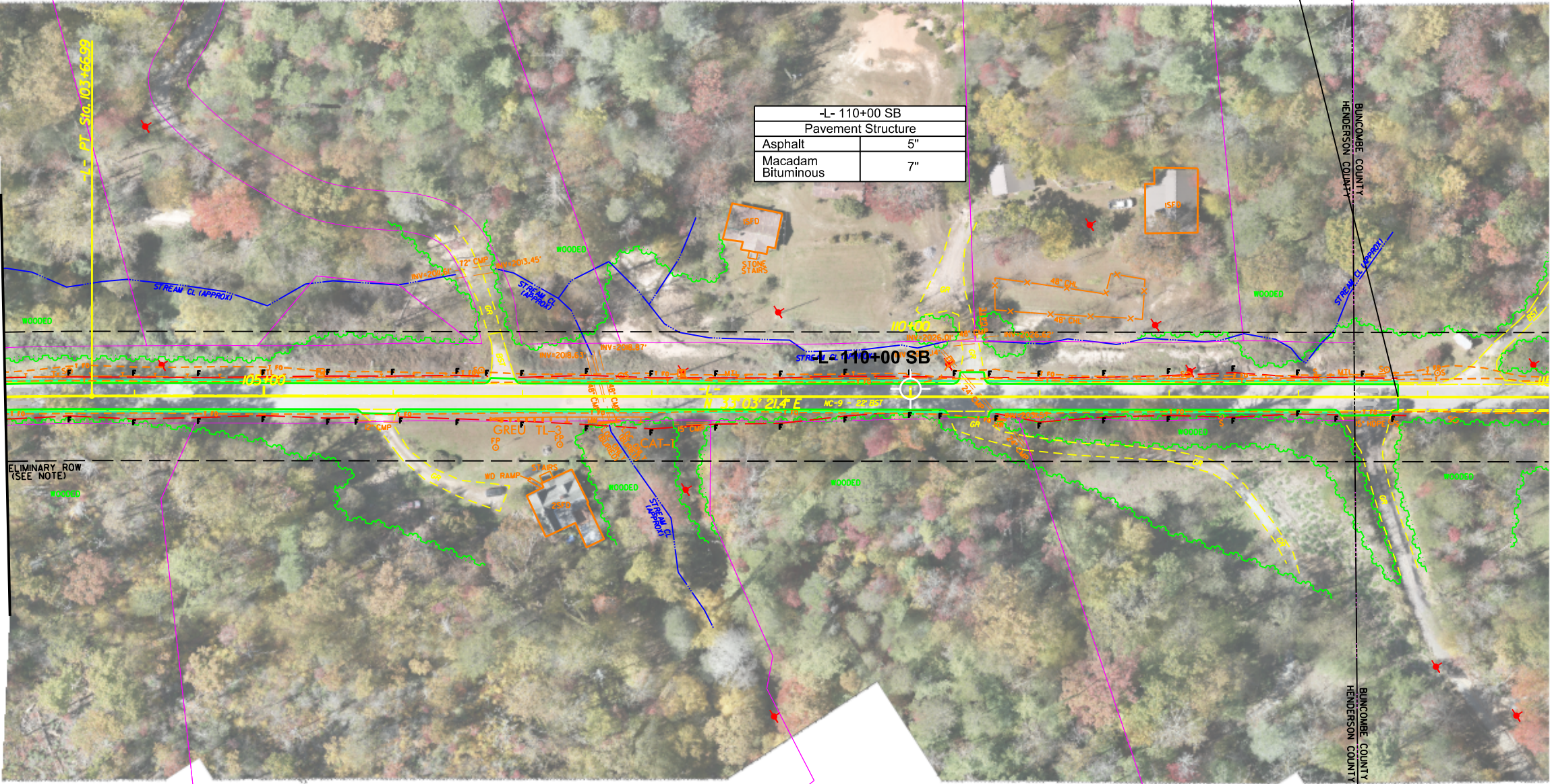


END TIP PROJECT W-0920

-L- STA 113+77.00

MATCHLINE -L- STA 103+00  
SEE SHEET 10

-L- 110+00 SB	
Pavement Structure	
Asphalt	5"
Macadam Bituminous	7"



BUNCOMBE COUNTY  
HENDERSON COUNTY

SYTIME\$\$\$\$\$  
\$\$\$\$\$SYTIME\$\$\$\$\$



PAVEMENT INVESTIGATION DATA SHEET

Project:	18314.1045035
TIP:	W-0920

Route:	NC 9 from US 74A to Buncombe County Line
County:	Henderson

Date:	1/21/2025
Notes By:	L. Campos

		Width				Thickness						Subgrade							GPS Coordinates	
Position (Sta.,Lane,Shldr.)	Cut/Fill (Est. of Amount) (ft)	Lane(s) (ft)	Shoulder(s) (ft)	Offset Distance (See Notes) (ft)	Crown "C" or Super "S"	Gross to Top of Soil	Asphalt (in.)	Cement-Treated Base Course (in.)	Gravel (in.)	Macadam (in.)	Pavement Layering	Description	Sample Number	AASHTO Classification	Soil Moisture	Probe Depth (ft)	Asphalt Notes	Northing	Easting	
-L- 33+00 SB RT	Cut 20	10.0	-	5 FYL	C	13.75	5.75	-	8.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Brown Sandy Silt	-	A-4	M	2	Moderate Severity Fatigue Cracking	638,314	1,021,020	
-L- 33+00 SB LT	Cut 20	10.0	-	9 FYL	C	14.0	6.0	-	8.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Brown Sandy Silt	-	A-4	M	2	Moderate Severity Fatigue Cracking	638,315	1,021,017	
-L- 42+00 SB	Cut 5	11.0	-	7 FYL	C	6.75	6.75	-	-	-	Asphalt	Refusal on Rock	-	-	M	0	High Severity Fatigue Cracking in Wheelpath	638,953	1,021,584	
-L- 51+00 SB RT	Cut 10	10.0	-	4 FYL	S	12.25	6.25	-	6.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Orange Sandy Silt	-	A-4	M	2	Moderate Severity Fatigue Cracking in Wheelpath	639,566	1,022,063	
-L- 51+00 SB LT	Cut 10	10.0	-	9 FYL	S	12.25	6.25	-	6.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Orange Sandy Silt	-	A-4	M	2	Moderate Severity Fatigue Cracking in Wheelpath	639,567	1,022,059	
-L- 60+00 SB	Fill 15	10.5	-	4 FYL	S	13	8.0	-	5.0	-	Asphalt Gravel	0.0 - 2.0 RE, Brown Sandy Silt	-	A-4	M	2	No Visible Distresses	640,182	1,022,570	
-L- 65+00 SB	Cut 10	11.0	1.0	5 FYL	S	9.75	9.75	-	15.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Brown Silty Sand	-	A-2-4	M	2	No Visible Distresses	639,863	1,022,944	
-L- 69+00 SB	G	11.0	1.0	5 FYL	S	12.5	8.5	-	4.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Brown Silty Sand	-	A-2-4	M	2	Low Severity Transverse Cracking	639,946	1,023,294	
-L- 72+00 SB	Cut 25	10.5	-	5 FYL	S	14.0	9	-	5.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Brown Silty Sand	-	A-2-4	M	2	Low Severity Transverse Cracking	640,227	1,023,322	
-L- 74+00 SB RT	Cut 30	10.0	-	5 FYL	S	14.75	8.75	-	6.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Tan Silty Sand	-	A-2-4	M	2	No Visible Distresses	640,398	1,023,221	
-L- 74+00 SB LT	Cut 30	10.0	-	8 FYL	S	14.5	8.5	-	6.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Tan Silty Sand	-	A-2-4	-	2	No Visible Distresses	640,397	1,023,219	
-L- 77+00 SB	Fill 40	10.0	-	6 FYL	S	14.0	9.0	-	5.0	-	Asphalt Gravel	0.0 - 2.0 RE, Brown Sandy Silt	-	A-4	M	2	Low Severity Transverse and Fatigue Cracking, Moderate Severity Longitudinal Cracking	640,679	1,023,115	
-L- 81+50 SB	Cut 10	10.0	-	5 FYL	S	16.0	8.0	-	8.0	-	Asphalt Gravel	0.0 - 2.0 Residual, Tan Sandy Silt	-	A-4	M	2	Low Severity Transverse Cracking, Low Severity Fatigue Cracking	641,126	1,023,083	
-L- 84+20 SB	Cut 5	10.0	-	8 FYL	S	15.25	7.25	-	-	8.0	Asphalt Macadam	0.0 - 2.0 RE, Gray White Sandy Silt	-	A-4	M	2	Low Severity Transverse Cracking, Low Severity Fatigue Cracking	641,363	1,022,964	
-L- 86+00 SB RT	Fill 5	10.5	-	6 FYL	C	10.5	6.5	-	-	4.0	Asphalt Macadam	0.0 - 2.0 RE, Brown Tan Sandy Silt	-	A-4	M	2	Low Severity Transverse Cracking, Low Severity Fatigue Cracking	641,503	1,022,851	
-L- 86+00 SB LT	Fill 5	10.5	-	8 FYL	C	10.0	6.0	-	-	4.0	Asphalt Macadam	0.0 - 2.0 RE, Brown Tan Sandy Silt	-	A-4	M	2	Low Severity Transverse Cracking, Low Severity Fatigue Cracking	641,502	1,022,850	

Notes:  
SB = Southbound  
LT = Left Side of Lane  
RT = Right Side of Lane  
FYL = From Yellow Line  
G = Grade  
RE = Roadway Embankment



S&ME, Inc.  
8848 Red Oak Boulevard, Suite A  
Charlotte, North Carolina 28217

## PAVEMENT INVESTIGATION DATA SHEET

Project:	18314.1045035
TIP:	W-0920

Route:	NC 9 from US 74A to Buncombe County Line
County:	Henderson

Date:	1/21/2025
Notes By:	L. Campos

[illegible]

Notes:

Notes:

- SB = Southbound
- LT = Left Side of Lane
- RT = Right Side of Lane

FYL = From Yellow Line  
G = Grade  
RE = Roadway Embankment



S&ME, Inc.  
8848 Red Oak Boulevard, Suite A  
Charlotte, North Carolina 28217

S&ME, Inc.

DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR				PROJECT NUMBER				TIP		ROUTE	
				24350796				W-0920		NC-9	
				COUNTY				GEOLOGIST		TECHNICIANS	
				HENDERSON				C. PAYNE		C. COGDILL	
TEST LOCATION DESCRIPTION				DATE RUN				CORRELATED CBR VALUES			
-L- 33+00 SB RT				1/24/2025							
DATUM	CUT / FILL		NORTHING		EASTING						
ABC	CUT		638,314		1,021,020						
CUMULATIVE PENETRATION IN CENTIMETERS											
0.1		7.1		26.3		70.8					
0.3		7.3		27.0		71.3					
0.4		7.4		27.8		####					
0.6		7.5		28.3							
0.9		7.6		28.7							
1.1		7.8		29.2							
1.2		7.9		29.6							
1.5		8.0		30.1							
1.7		8.3		30.5							
2.0		8.5		31.0							
2.1		8.7		31.4							
2.2		8.8		31.8							
2.3		9.1		32.5							
2.5		9.2		33.1							
2.6		9.5		33.5							
2.8		9.8		34.2							
2.9		10.3		35.0							
3.0		10.6		36.1							
3.2		11.0		36.7							
3.3		11.3		37.1							
3.4		11.5		37.9							
3.5		11.9		38.6							
3.6		12.2		39.4							
3.7		12.6		41.1							
3.8		12.9		42.0							
3.9		13.4		42.8							
4.0		13.9		43.9							
4.1		14.2		45.1							
4.2		14.6		46.6							
4.3		15.0		47.8							
4.4		15.3		49.1							
4.5		15.9		51.3							
4.6		16.2		53.6							
4.7		16.7		55.0							
4.8		17.1		57.1							
4.9		17.5		58.9							
5.0		17.8		60.1							
5.1		18.4		61.0							
5.2		18.8		62.6							
5.3		19.1		63.4							
5.4		19.7		64.0							
5.5		20.1		64.7							
5.6		20.4		64.9							
5.7		20.9		65.6							
5.8		21.4		66.0							
5.9		22.3		66.7							
6.0		22.9		67.5							
6.2		23.4		67.9							
6.3		23.8		68.5							
6.5		24.5		69.0							
6.7		25.0		69.4							
6.9		25.4		69.9							
7.0		25.9		70.2							

0 20 40 60 80 100

0

4

8

12

16

20

24

28

32

36

40

44

48

GRAVEL

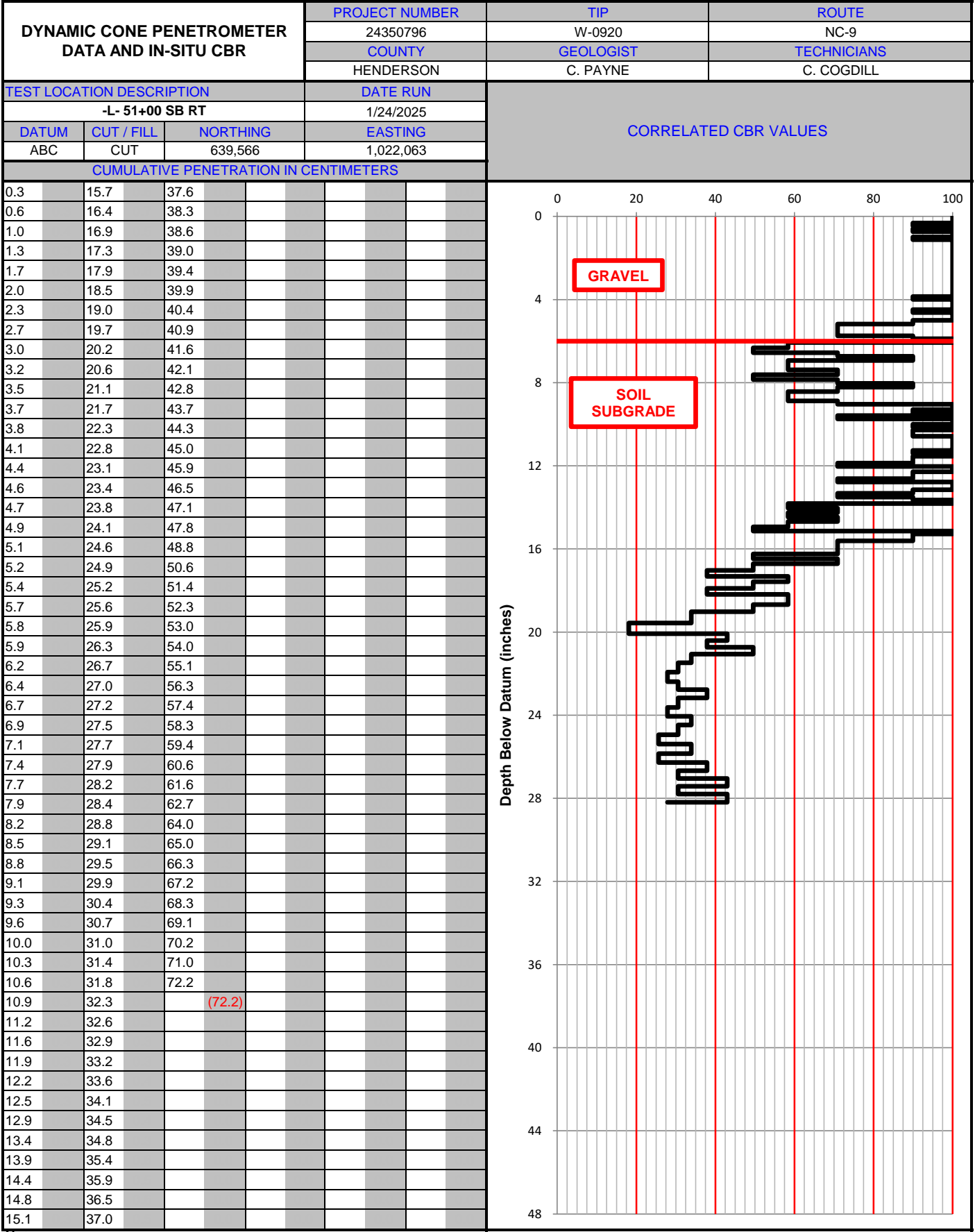
SOIL SUBGRADE

Depth Below Datum (inches)

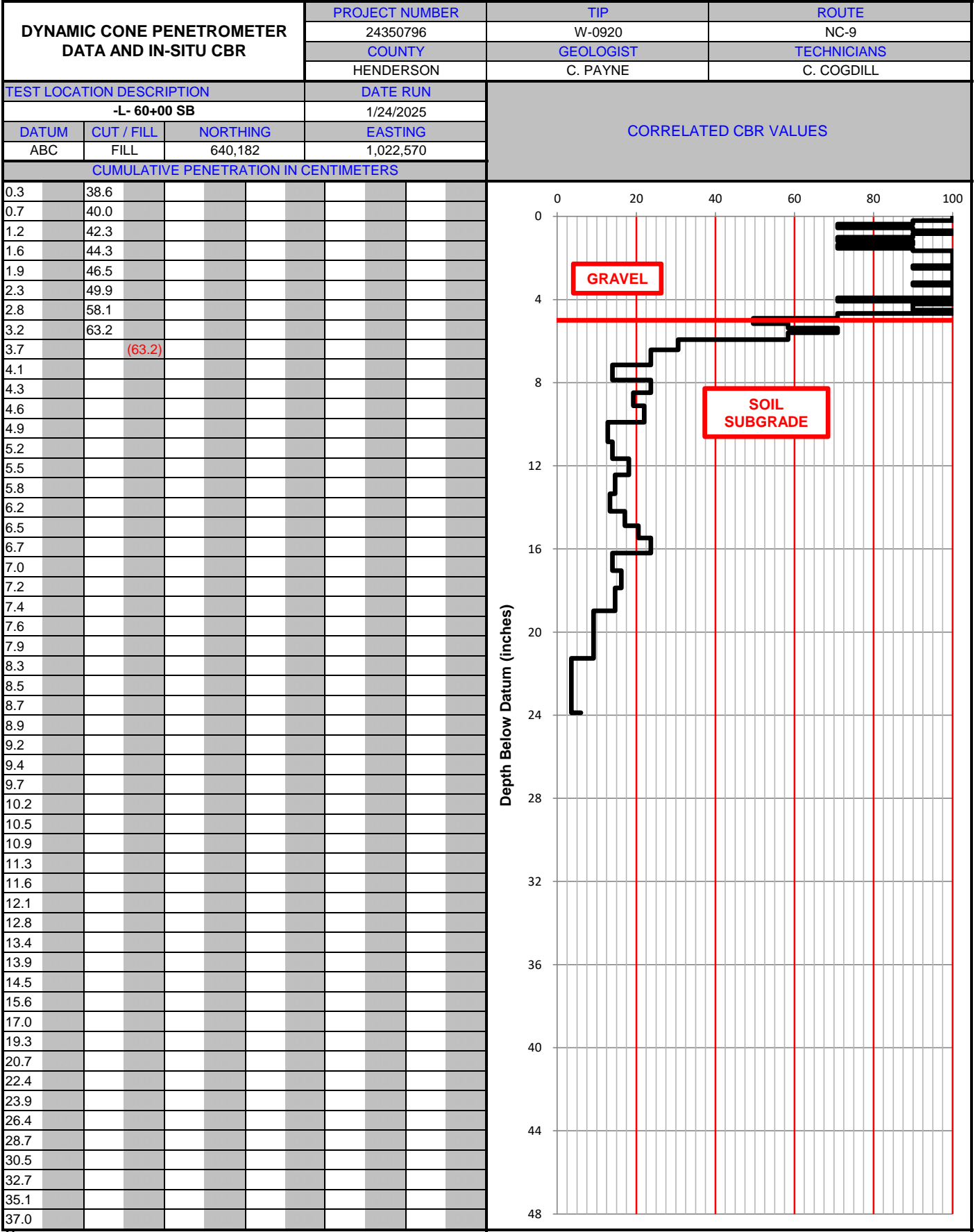
**Notes:**  
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[illegible]

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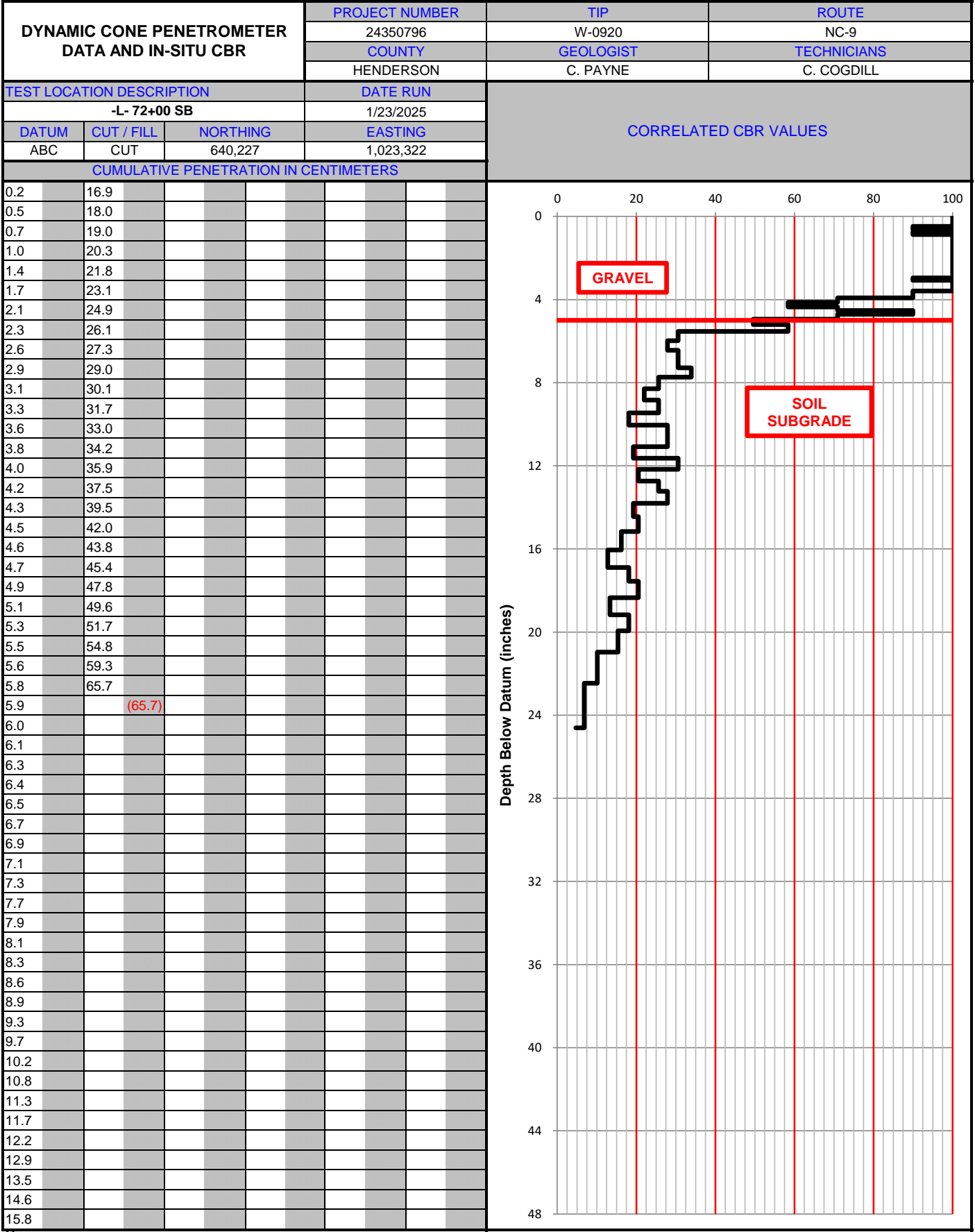
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR				PROJECT NUMBER	TIP	ROUTE
				24350796	W-0920	NC-9
				COUNTY	GEOLOGIST	TECHNICIANS
				HENDERSON	C. PAYNE	C. COGDILL
TEST LOCATION DESCRIPTION				DATE RUN		
-L- 65+00 SB				1/24/2025		
DATUM	CUT / FILL	NORTHING	EASTING	CORRELATED CBR VALUES		
ABC	CUT	639,863	1,022,944			
CUMULATIVE PENETRATION IN CENTIMETERS						
0.10	4.30			<div>048</div> <div>Depth Below Datum (inches)</div>	<div>020406080100</div> <div>GRAVEL</div>	
0.30	4.32					
0.40	4.40					
0.50	4.43					
0.70	4.44					
0.90	4.45					
1.00	4.50					
1.10	4.52					
1.30	4.55					
1.50	4.60					
1.60	4.65					
1.70	4.70					
1.80	4.75					
2.00	4.80					
2.10	4.90					
2.20	5.00					
2.30	5.10					
2.40	5.11					
2.50	5.12					
2.60	5.13					
2.70	5.14					
2.80	5.15					
2.90	5.16					
3.00	5.17					
3.05	5.18					
3.10	5.19					
3.15	5.20					
3.20	5.21					
3.30	5.22					
3.40	5.23					
3.42	5.24					
3.47	5.25					
3.50	5.26					
3.55	5.27					
3.60	5.28					
3.62	5.29					
3.64	5.30					
3.68	(5.3)					
3.70						
3.80						
3.82						
3.84						
3.90						
3.94						
3.96						
4.01						
4.10						
4.14						
4.15						
4.20						
4.22						
4.24						
4.26						

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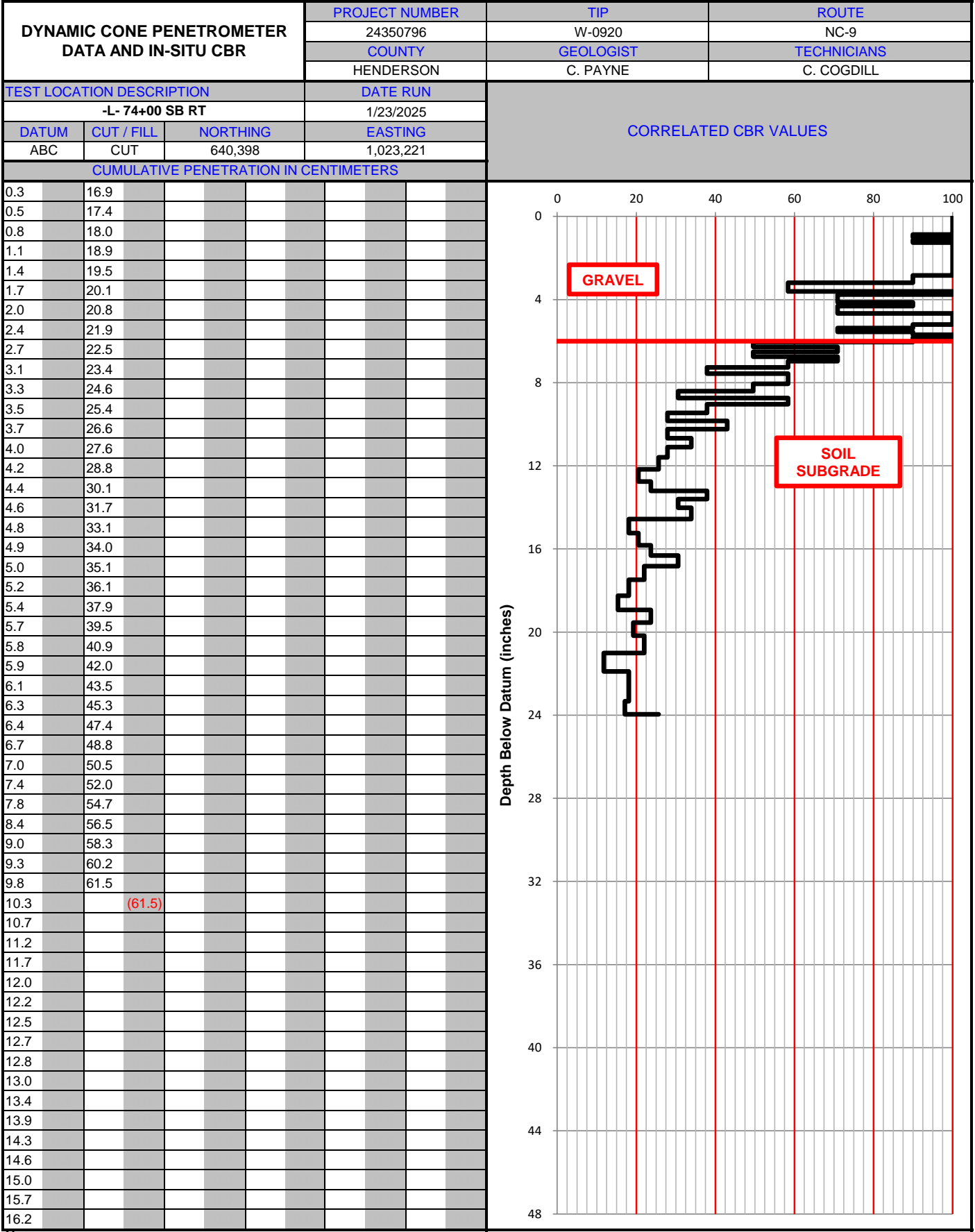
DYNAMIC CONE PENETROMETER DATA AND IN-SITU CBR				PROJECT NUMBER	TIP	ROUTE
				24350796	W-0920	NC-9
				COUNTY	GEOLOGIST	TECHNICIANS
				HENDERSON	C. PAYNE	C. COGDILL
TEST LOCATION DESCRIPTION				DATE RUN		
-L- 69+00 SB				1/24/2025		
DATUM	CUT / FILL	NORTHING	EASTING	CORRELATED CBR VALUES		
ABC	GRADE	639,946	1,023,294			
CUMULATIVE PENETRATION IN CENTIMETERS						
0.2	23.8	47.6		<div>048</div> <div>Depth Below Datum (inches)</div>	<div>020406080100</div> <div>GRAVEL</div> <div>SOIL SUBGRADE</div>	
0.4	25.6	48.1				
0.6	27.5	48.5				
0.7	28.8	49.0				
0.9	29.6	49.4				
1.0	29.9	49.9				
1.2	30.3	50.4				
1.3	30.5	51.0				
1.4	30.8	51.4				
1.6	31.2	51.8				
1.8	31.5	52.3				
2.1	31.7	52.7				
2.3	32.0	53.5				
2.5	32.3	54.2				
2.6	32.7	55.1				
2.7	32.9	55.8				
3.0	33.4	56.5				
3.1	33.6	57.6				
3.3	33.8	58.4				
3.6	34.1	58.9				
3.9	34.4	59.4				
4.1	34.6	60.3				
4.4	35.0	61.1				
4.6	35.3	61.8				
4.8	35.7	62.7				
5.0	36.0	63.7				
5.3	36.6	64.6				
5.5	37.0	65.6				
5.6	37.3	66.7				
6.0	37.7	67.7				
6.3	38.2	68.8				
6.6	38.5	(68.8)				
6.8	38.9					
7.0	39.3					
7.4	39.8					
7.6	40.3					
7.8	40.6					
8.1	41.0					
8.3	41.4					
8.6	41.7					
9.0	41.9					
9.3	42.3					
9.8	42.5					
10.3	42.9					
10.7	43.3					
11.5	43.6					
12.3	43.9					
13.5	44.4					
15.0	44.7					
16.2	45.2					
17.5	45.9					
19.1	46.7					
21.9	47.1					

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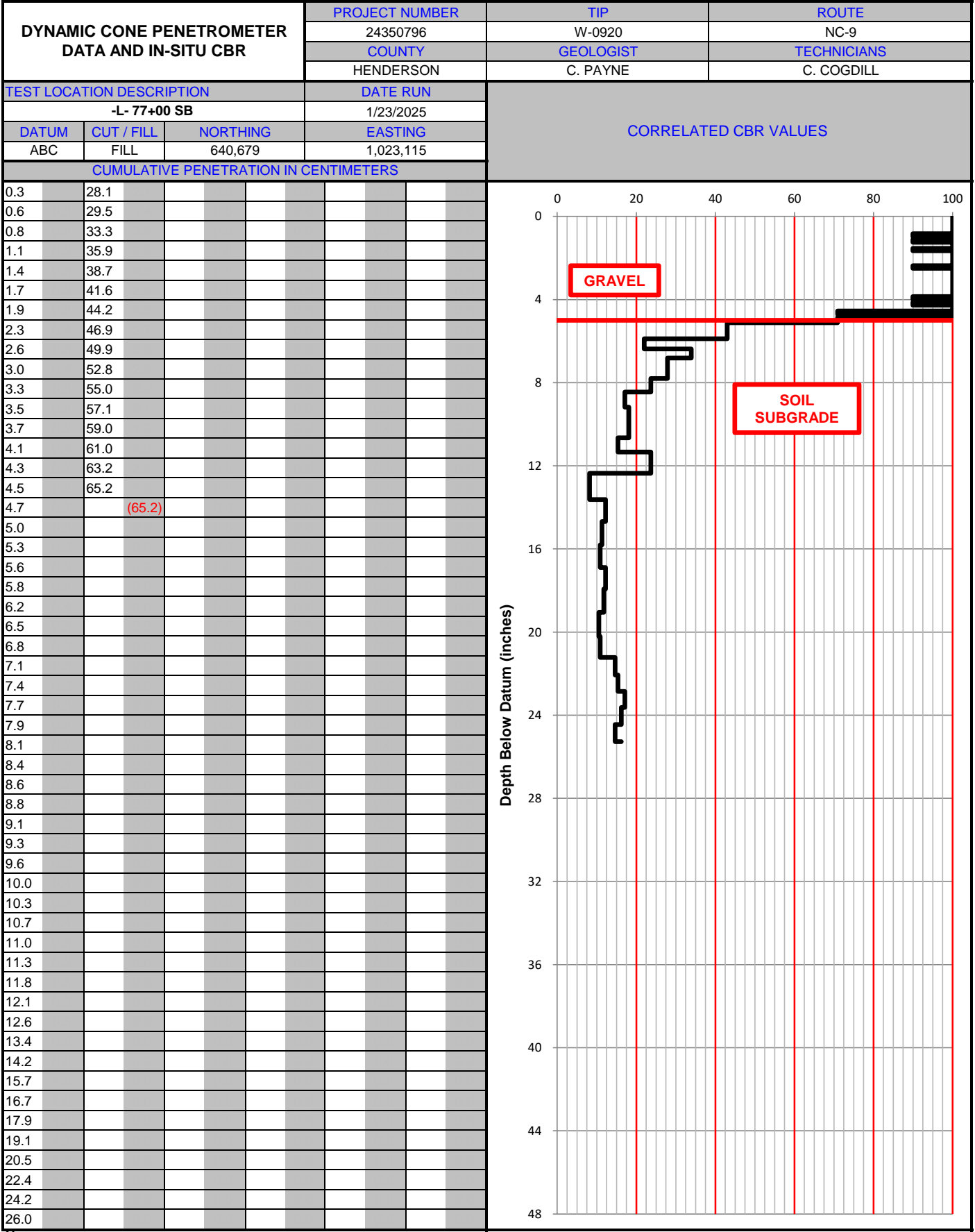




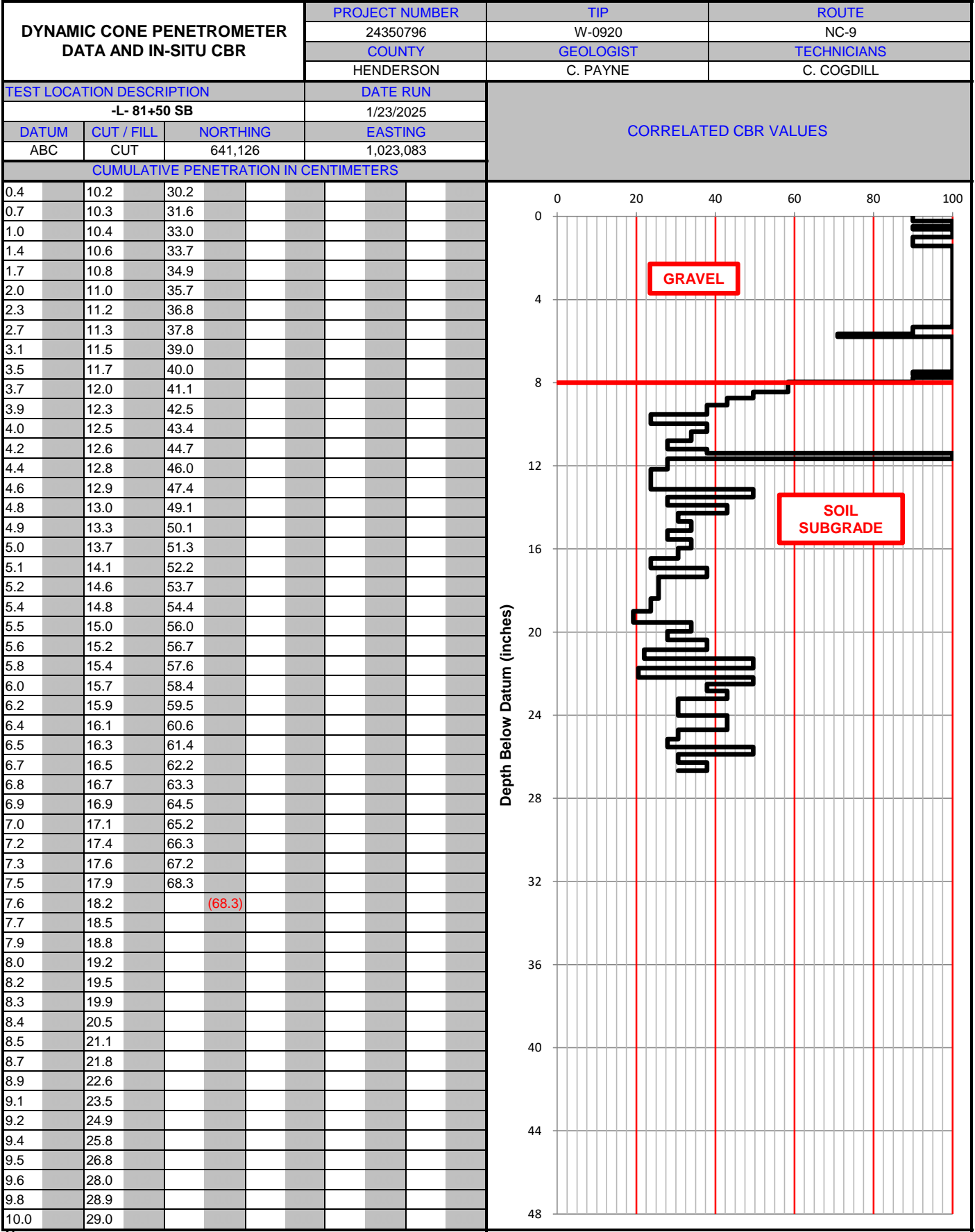
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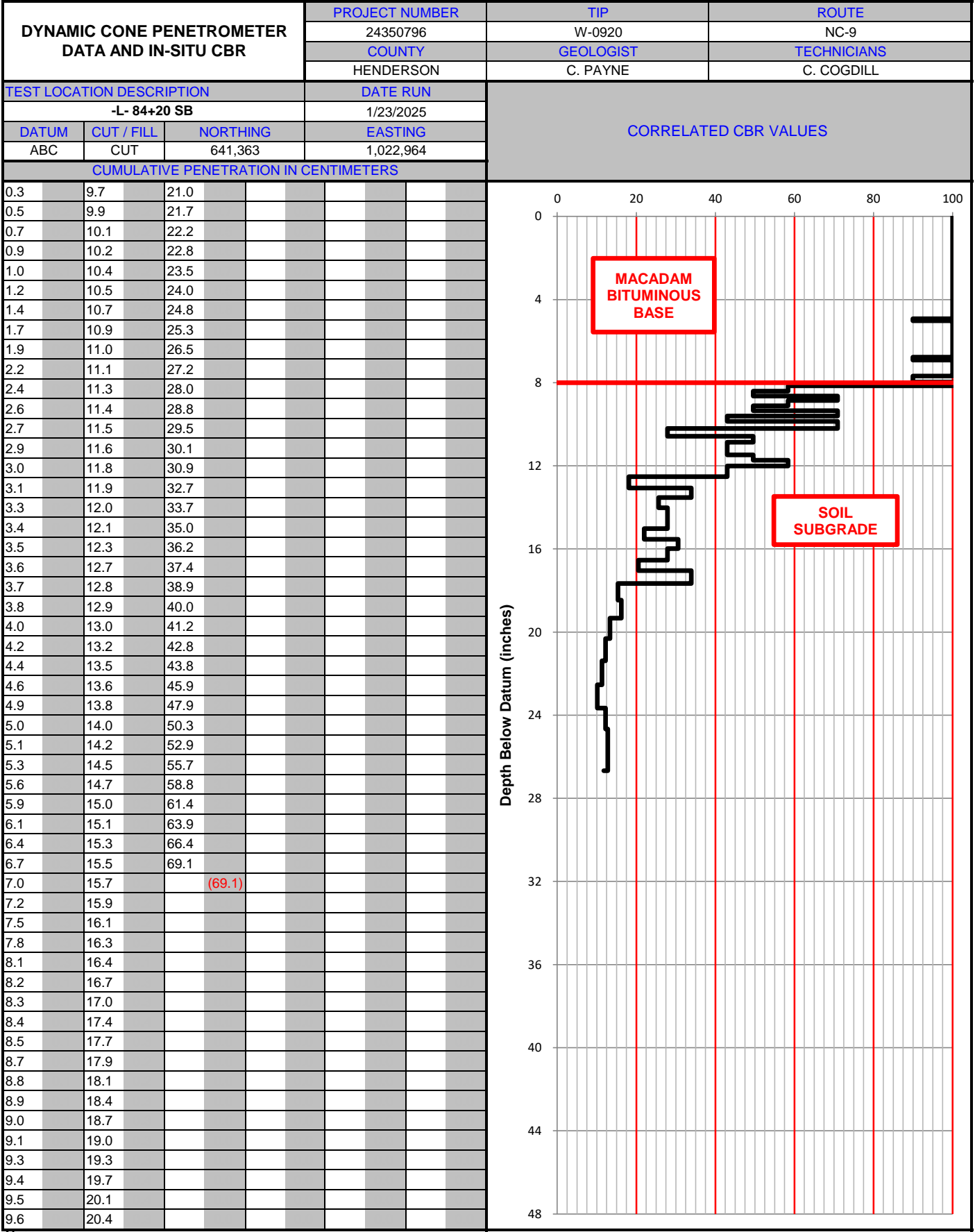
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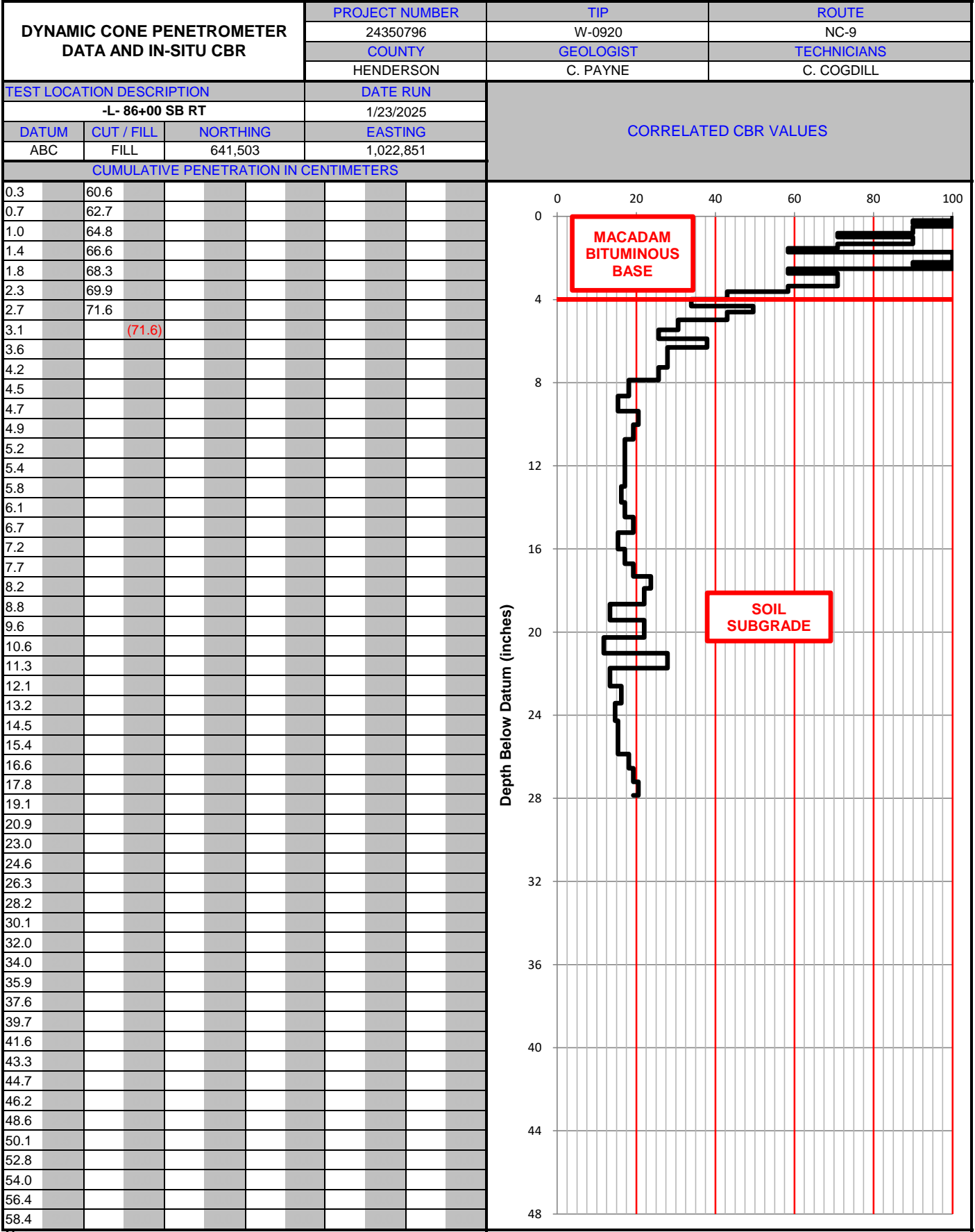
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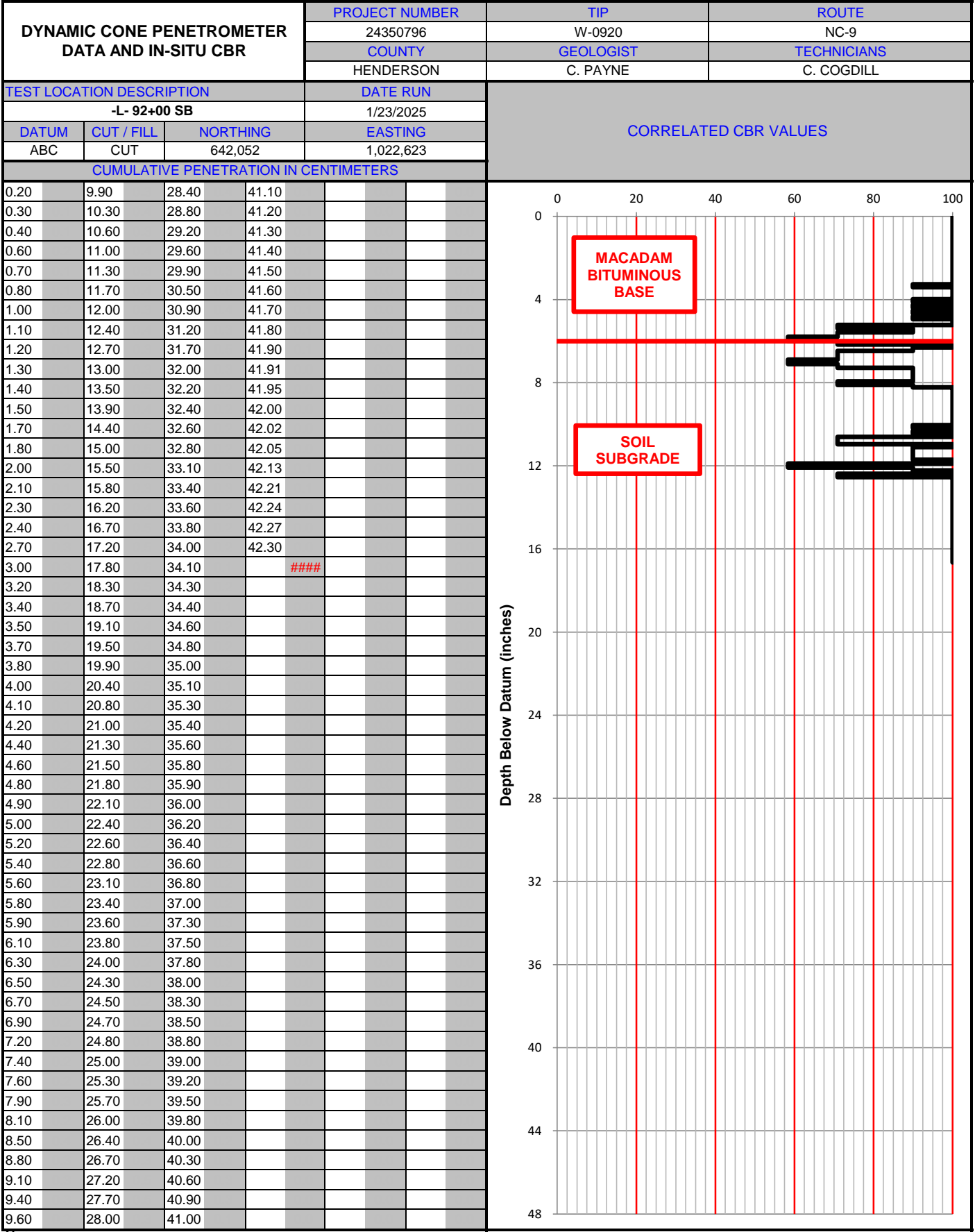
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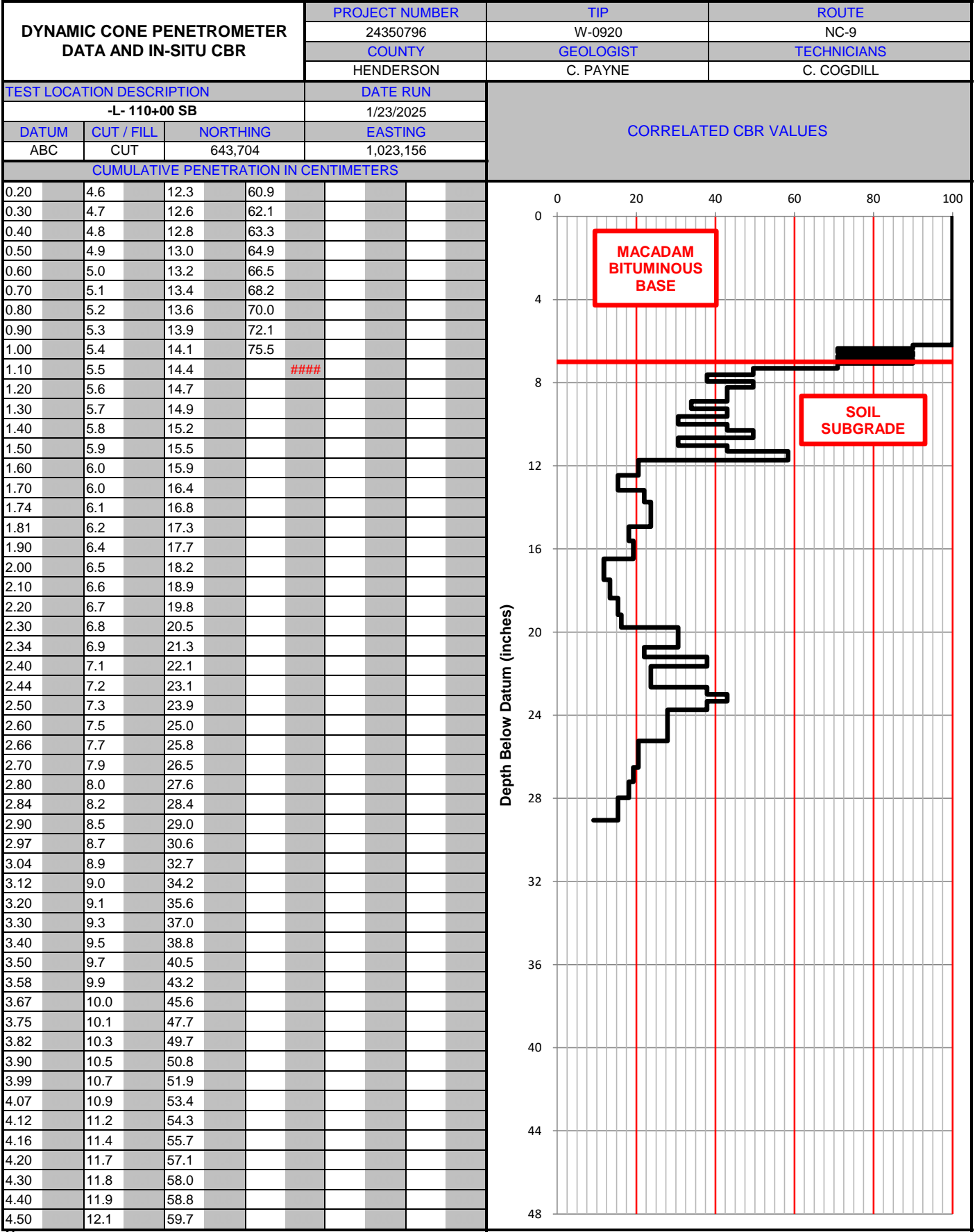
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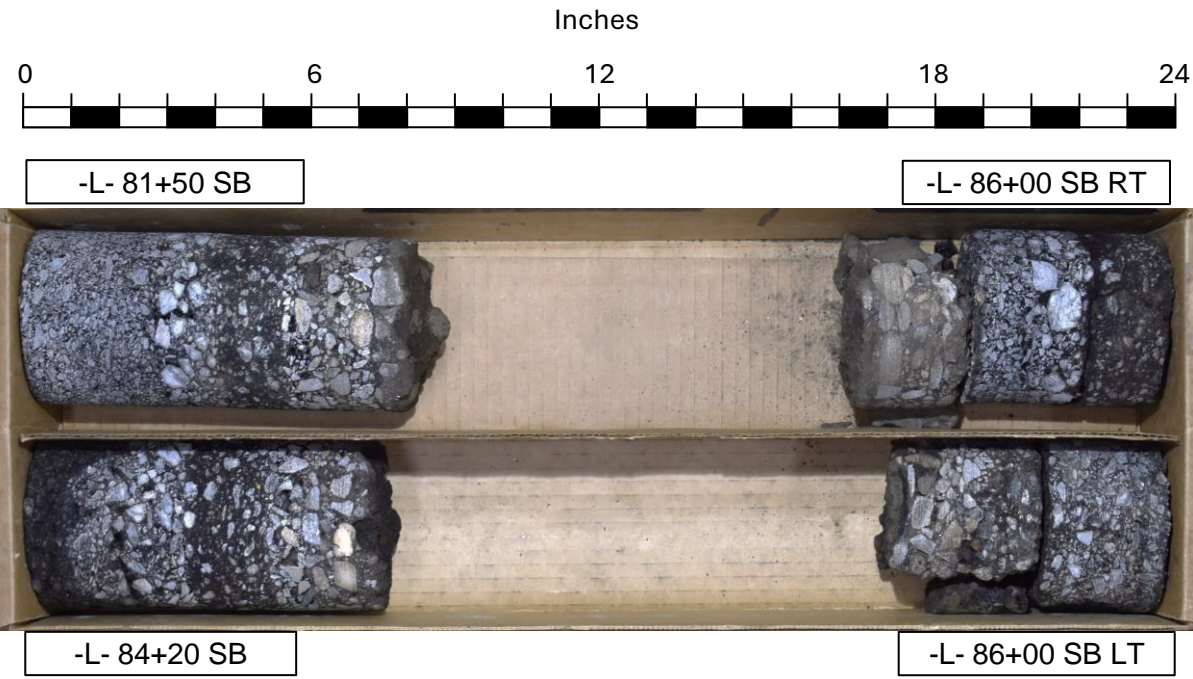
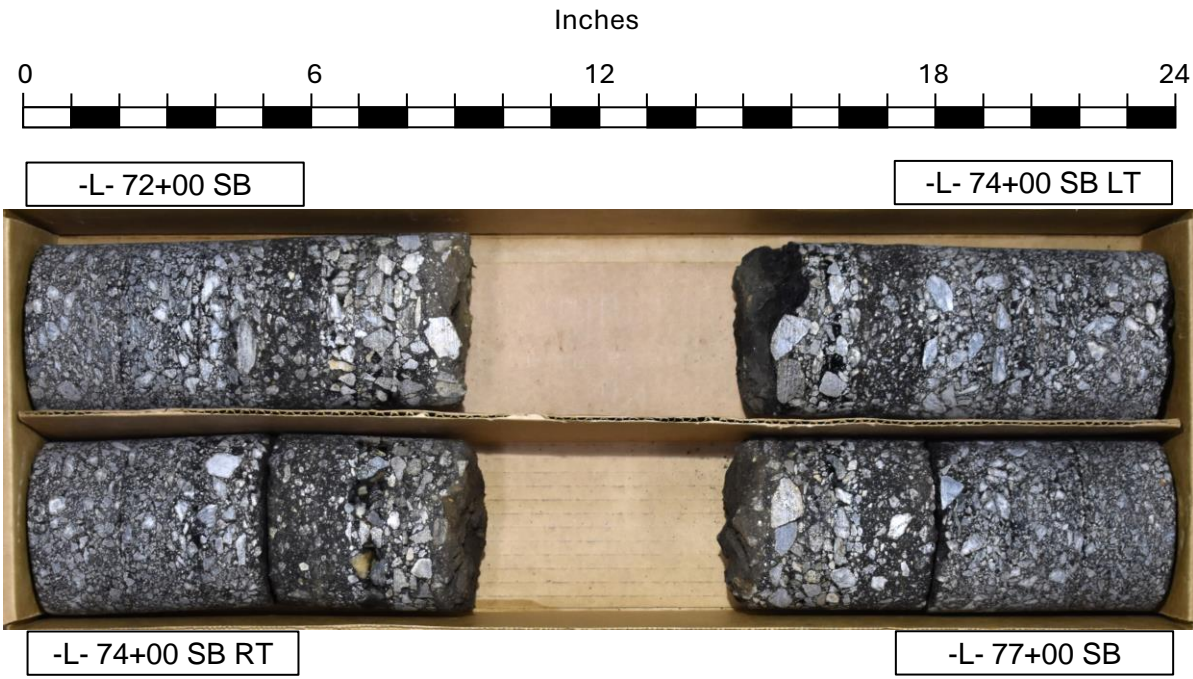
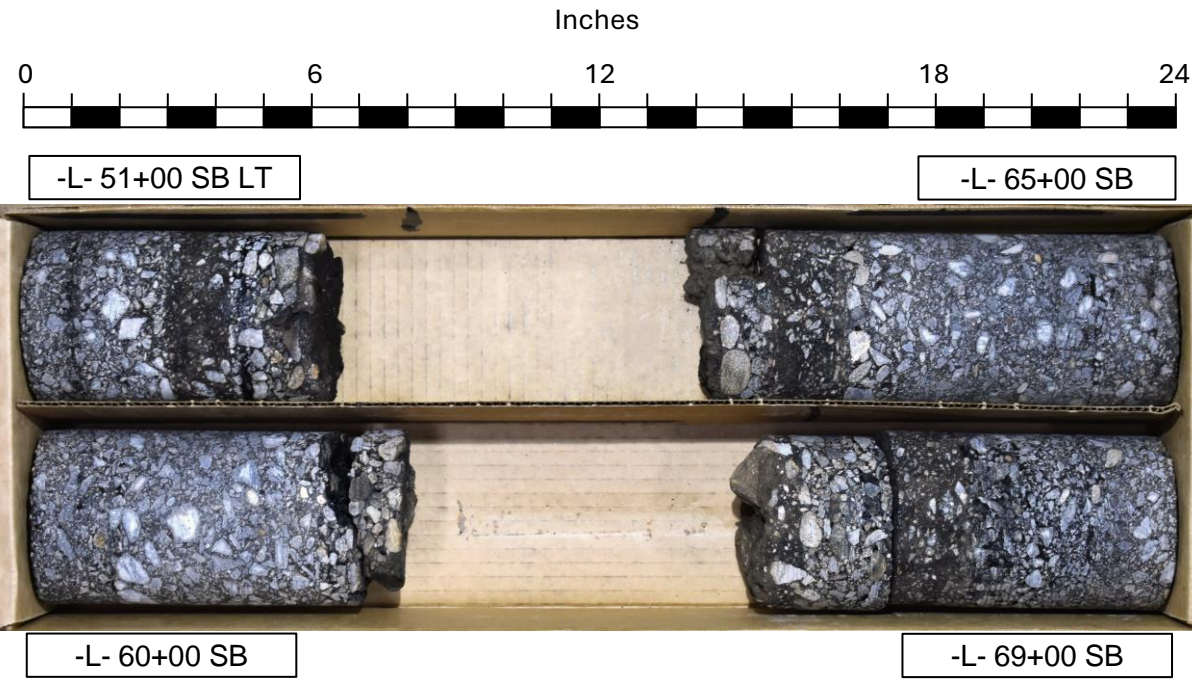
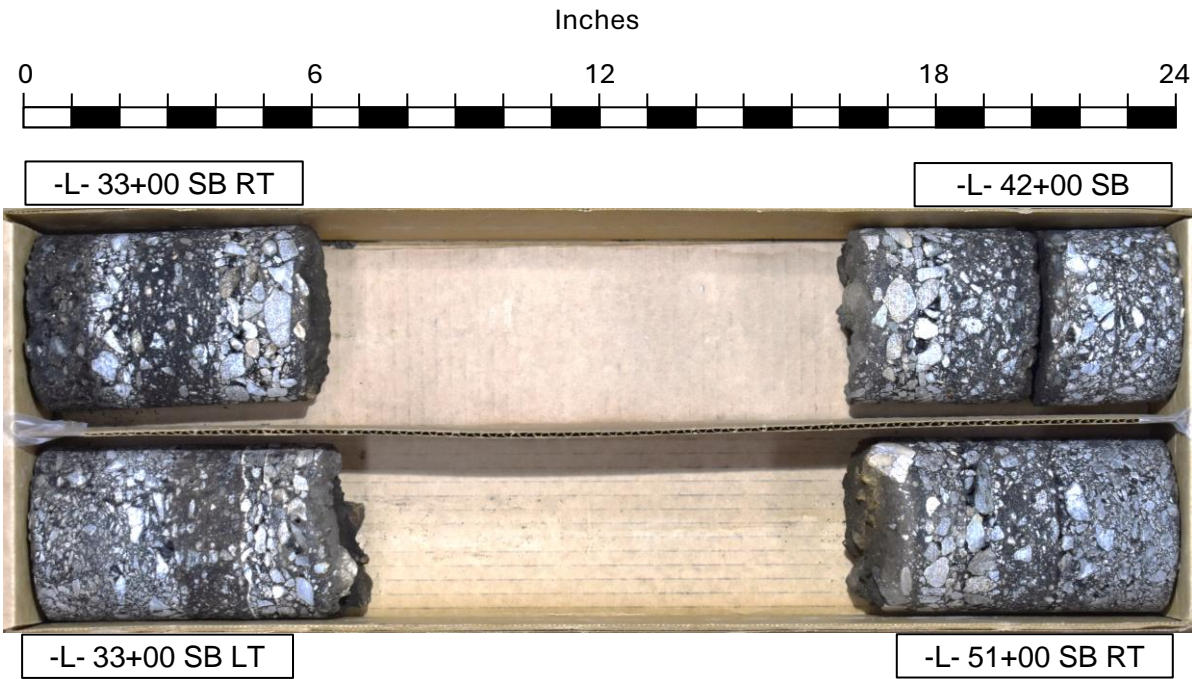


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PAVEMENT CORE PHOTOGRAPHS

WBS: 18314.1045035    TIP: W-0920    Route: NC-9 from US 74A to Buncombe County Line in Bat Cave    County: Henderson

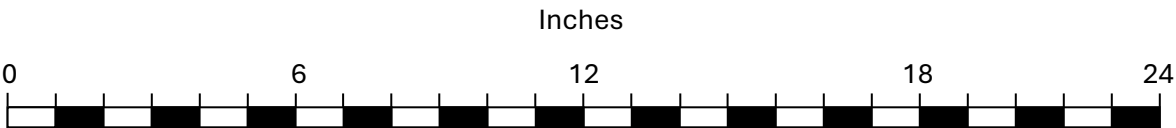


Notes:  
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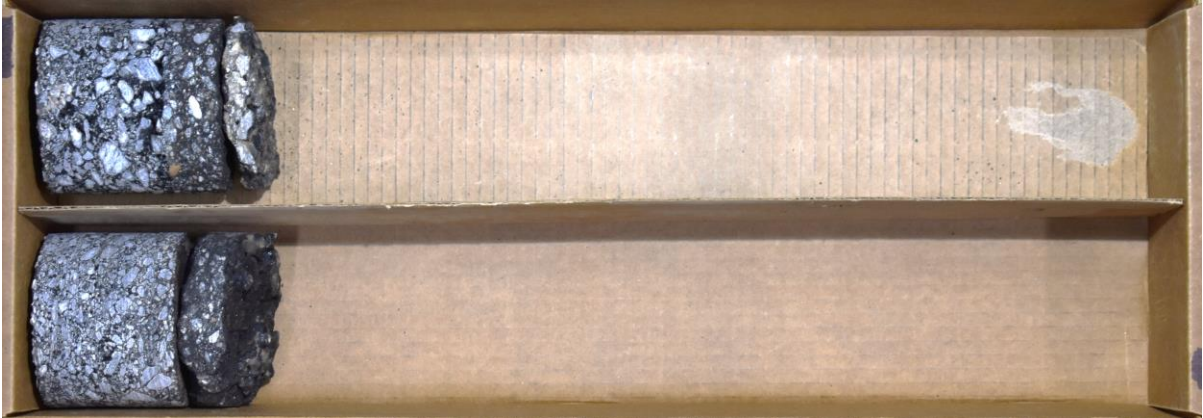


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WBS: 18314.1045035    TIP: W-0920    Route: NC-9 from US 74A to Buncombe County Line in Bat Cave    County: Henderson



-L- 92+00 SB



-L- 110+00 SB

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