

ARKANSAS DEPARTMENT OF TRANSPORTATION



SUBSURFACE INVESTIGATION

STATE JOB NO. 090672

FEDERAL AID PROJECT NO. FEDERAL AID PROJECT STPR-0064(20) & 9030

HWY. 66 REALIGNMENT (LESLIE) (S)

STATE HIGHWAY 66 SECTION 1

IN SEARCY COUNTY

The information contained herein was obtained by the Department for design and estimating purposes only. It is being furnished with the express understanding that said information does not constitute a part of the Proposal or Contract and represents only the best knowledge of the Department as to the location, character and depth of the materials encountered. The information is only included and made available so that bidders may have access to subsurface information obtained by the Department and is not intended to be a substitute for personal investigation, interpretation and judgment of the bidder. The bidder should be cognizant of the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated herein.



ARKANSAS DEPARTMENT OF TRANSPORTATION

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MATERIALS DIVISION

11301 West Baseline Road | P.O. Box 2261 | Little Rock, AR 72203-2261 | Phone: 501.569.2185 | Fax: 501.569.2368

November 3, 2022

TO: Mr. Trinity Smith, Engineer of Roadway Design

SUBJECT: Job No. 090672
Hwy. 66 Realignment (Leslie) (S)
Route 66 Section 1
Searcy County

Based on soil information from projects in the surrounding area, an estimated R-Value of 15 is appropriate for pavement design.

Listed below is the information requested for use in developing the plans:

Asphalt Concrete Hot Mix **64-22**

Type	Asphalt Cement %	Mineral Aggregate %
Surface Course	5.4	94.6
Binder Course	4.4	95.6
Base Course	4.1	95.9

Paul Tinsley
Materials Engineer

RPT:zy:bjj
Attachment

cc: State Constr. Eng. – Master File Copy
District 9 Engineer
System Information and Research Div.
G. C. File



July 15, 2025

TO: Mr. Rick Ellis, Bridge Engineer
SUBJECT: Job No. 090672
Hwy. 66 Realignment (Leslie) (S)
Searcy County
Route 66 Section 1

INTRODUCTION

Submitted herein are results of the subsurface investigation and geotechnical recommendations developed for the proposed replacement bridge on Highway 66 over Cove Creek in Searcy County.

The proposed structure will be 280 feet in total length and consist of a 140-foot Continuous Composite W-Beam Unit and two 70-foot Continuous Reinforced Concrete Slab Units. The proposed structure will have an out-to-out width of 47.25 feet. The proposed alignment is located southeast of the existing bridge.

Based on the geotechnical investigation request from Bridge Division, foundation loads are expected to be supported on H-Piles at the end bents and spread footings or drilled shafts at the intermediate bents. 2-Horizontal to 1-Vertical (2H:1V) end slopes and 3H:1V side slopes are planned at the proposed abutments. Abutment slopes will be constructed utilizing fill with maximum embankment heights ranging from 14 to 16 feet. A conventional cast-in-place retaining wall along Highway 65 is planned from Station 216+40 to 216+90 and Station 219+22 to 220+04 with a maximum wall height of 12 feet.

FIELD INVESTIGATION

A subsurface investigation was requested by Bridge Division on December 17, 2024, to provide geotechnical recommendations for bridge foundations and to evaluate the proposed embankment configuration at the bridge abutments. It was also requested that the proposed conventional retaining wall along Highway 65 be analyzed for external stability. Eight bridge borings were requested, and a total of 14 bridge borings and one retaining wall boring were drilled.

The approximate boring locations are shown on the Plan of Borings included in Attachment A. Boring logs showing the subsurface conditions and the results of field and laboratory tests are also included in Attachment A. A legend is attached following the boring logs to describe the symbols, terms, and conventions used on the logs. Drilling was conducted using a track-mounted Acker Renegade and a truck-mounted CME 75 rotary drill rig utilizing hollow-stem auger and diamond coring techniques. Standard Penetration Tests (SPT) were conducted in accordance with ASTM D1586 to obtain in-situ soil resistance and to collect soil samples. The hammer energy correction factors are noted on the boring logs. Liners were not used in the split-barrel samplers.

SPT blow counts were recorded in 6-inch increments over an 18-inch drive depth, with the N-value defined as the number of blows required to penetrate the final 12 inches. All N-values shown on the boring logs are uncorrected field values.

Bedrock core samples were obtained using NQ3-size triple-tube core barrels (1¾-inch diameter core, 3-inch diameter hole). Total Core Recovery (TCR) and Rock Quality Designation (RQD) were assessed in the field and later reviewed by a licensed Professional Geologist (PG). TCR represents the percentage of total intact core recovered, while RQD indicates the percentage of core pieces that are four inches or longer. These values, listed on the boring logs, may underestimate the in-situ quality due to the vertical bedding of the rock mass, which can result in fragmentation during coring. Core pictures are included in Attachment B.

LAB INVESTIGATION

All soil and rock samples collected during the field investigation were transported to the Materials Division laboratory for further testing and evaluation. Laboratory tests were conducted to characterize the index properties and to confirm soil classifications.

Soil samples were analyzed for moisture content, Atterberg limits, grain size distribution, resistivity, and pH. Soils were classified by a licensed PG in accordance with the Unified Soil Classification System (USCS) and the AASHTO Soil Classification System. The test results are denoted on the boring logs. Table 1 summarizes the laboratory tests performed, the applicable ASTM and/or AASHTO standards and how results are indicated on the logs.

Rock cores were first reviewed by a licensed PG to confirm TCR and RQD values recorded in the field and to determine the Geological Strength Index (GSI) and Rock Mass Rating (RMR). Uniaxial compressive strength tests were performed on selected intact rock specimens in accordance with ASTM D7012, Method C. Results of these tests, along with RMR values, are provided in Attachment B, following the core pictures.

Table 1: Summary of Laboratory Tests and Methods

Laboratory Test	ASTM	AASHTO	Denotation on Logs
Moisture Content	D2216	T 265	Solid Circle Symbol (●)
Grain Size Distribution	D6913	T 88	Whole Number in the “Percent Passing No. 200 Sieve” Column (e.g., 12)
Atterberg Limits	D4318	T 89	Vertical line () on the Right for Liquid Limit
		T 90	Vertical line () on the Left for Plastic Limit
Resistivity		T 288	Not Denoted on Logs
pH	ARDOT 357		
Uniaxial Compression of Rock Cores	D7012, Method C		

The particle size through which 50% of particles by weight passing, D₅₀, is summarized in Table 2. The particle size distribution curve used for D₅₀ determination is included in Attachment B following the rock core summary.

Table 2: Summary of D₅₀ for Scour Analysis

Hydraulic Feature	Sample Location	Sample Type	Location	D ₅₀ , mm
Cove Creek	103+50, 47' LT	Bulk	Creek Bank	5

To determine the corrosive potential of the foundation soils on steel piles, laboratory pH and resistivity tests were performed with bulk soil samples obtained from Boring 7 at 0 to 15 feet below ground level (bgl). The results of pH and resistivity tests are summarized in Table 3.

Table 3: Results of Laboratory pH and Resistivity Test

Laboratory Test	Boring	Boring Location	Depth, ft	Results
pH	7	104+89, 26' RT	0 to 15	7.5
Resistivity				975 ($\Omega \cdot \text{cm}$)

SITE CONDITIONS

This project consists of replacing the Route 66 bridge spanning Cove Creek with a new bridge located approximately 400 feet southeast and downstream of the existing bridge on a new alignment. At the proposed alignment, Cove Creek flows from the northwest to the southeast for approximately 1 mile before merging with the Middle Fork of the Red River.

The existing bridge is approximately 167 feet long and 23 feet wide (out-to-out), consisting of a Reinforced Concrete Deck Girder supported by reinforced concrete abutments with steel piles and reinforced concrete bents with spread footings. Site pictures are included in Attachment C.

SITE GEOLOGY AND GENERAL SUBSURFACE CONDITIONS

The proposed alignment is located within the Boston Mountains of the Ozark Plateau and overlies the mapped outcrop of the Fayetteville Shale Formation. According to The Office of The State Geologist's stratigraphic summary, the Fayetteville Shale can be described as a black, fissile, concretionary, clay shale and ranges in thickness from 10 to 400 feet. Dark-gray, fine-grained limestones commonly are interbedded with shales in north-central Arkansas. Septarian concretions are common in lower beds of the Fayetteville Shale but may be found throughout the formation. Fossils are abundant in some intervals and in local areas. The formation is considered to rest conformably on the Batesville Sandstone (and Hindsville Member). The Pitkin Limestone overlies the Fayetteville shale and can be observed in many of the outcrops surrounding the project alignment.

The cores recovered from the borings are primarily limestone with interbedded shale. Many of these shales are soft and brittle, resulting in low TCR and low RQD values. Rock was encountered at approximately 7.5 and 15 feet bgl. However, at Bent 1, rock was not encountered in Borings 1C and 1D. Rock fragments retrieved from these two borings were similar in character to the rock retrieved in the other borings. Rock was encountered at 7.7 to 14.3 feet bgl in additional offset borings drilled at Bent 1. Some of these borings contained soft shale layers and karst features such as cavities. It is possible that the borings at Bent 1 were drilled in or next to a subsurface ledge or karst feature such as a void or crevice. Therefore, varying subsurface conditions across the proposed alignment should be anticipated, particularly at Bent 1. Two generalized subsurface profiles are provided in Attachment D to illustrate site stratigraphy and stratigraphy at Bent 1. Estimated elevations of competent rock at each boring location are summarized in Table 4.

Table 4: Estimated Elevation of Competent Rock

Boring No.	Ground Surf. Elev. @ Boring Location, ft.	Estimated Elev. of Competent Rock, ft.
1A	961.1	950.7
1B	961.1	951.1
1C	961.2	Below 944.7
1D	961.5	Below 935.1
1E	961.6	951.4
1F	962.0	947.7
2A	963.1	950.7
2B	963.0	951.7
3	963.8	951.6
4	963.6	948.9
5	963.3	949.6
6	956.4	947.4
7	972.9	957.5
8	977.1	966.0
RW	977.4	960.4

SEISMIC CONDITIONS

Seismic Site Class and Seismic Performance Zone

Based on the average subsurface conditions, a Seismic Site Class C (Very Dense Soil and Soft Rock) was calculated for the proposed bridge over Cove Creek. Utilizing Seismic Site Class C and the approximate GPS coordinates of the project site, the following design peak ground acceleration coefficient (A_s), design short-period spectral acceleration coefficient (S_{DS}), as well as design long-period spectral acceleration coefficient (S_{D1}), were determined. These seismic coefficients are summarized in Table 5. For the design long-period spectral acceleration coefficient (S_{D1}) of 0.149g, a Seismic Performance Zone 1 is considered applicable.

Table 5: Design Ground Motion Acceleration Response Coefficients

Acceleration Coefficient	Value (g)
A_s (Site PGA)	0.145
S_{DS} (0.2 sec)	0.328
S_{D1} (1 sec)	0.149

Design Response Spectrum is presented in Attachment E.

APPROACH EMBANKMENTS

Embankment Configuration

The proposed bridge includes embankments with 2H:1V end slopes and 3H:1V side slopes. These embankments will be constructed utilizing fill. Maximum fill height at Bent 1 and Bent 7 is anticipated to be approximately 16 and 3 feet, respectively.

Settlement Potential

Due to shallow depth to bedrock and underlying soils consisting of clayey gravel, moderately plastic clays and clay/sand mixtures, fill induced settlement at Bent 1 and Bent 7 is expected to be primarily elastic. Consolidation settlement is anticipated to be minimal and essentially complete during construction.

Approach Stability

Slope stability analyses were conducted using the Slide2 software (Version 2021) developed by RocScience. The Spencer method was utilized to assess slope stability under three loading conditions: Short-Term/End of Construction, Long-Term, and Seismic/Pseudo-Static.

For the seismic analysis, a horizontal acceleration coefficient (K_h) of 0.0725 (equivalent to 0.5 times the site peak ground acceleration) was used. A uniform live load surcharge of 250 psf was applied in the long-term condition.

Stability analyses were performed for the 2H:1V end slopes at the abutments. The calculated factors of safety under each loading condition are summarized in Table 6. All results indicate that the proposed slope geometry meets or exceeds the recommended minimum factors of safety, confirming the suitability of the planned embankment configurations. Graphical outputs of the analyses are provided in Attachment F.

Table 6: Results of Slope Stability Analyses Utilizing Plan Configuration

Design Condition	Calculated Factor of Safety		Recommended Minimum Factor of Safety
	Bent 1	Bent 7	
End of Construction (Short Term)	2.82	4.22	1.3
Long Term	1.73	2.52	1.4
Pseudo-Static (Seismic)	2.07	3.48	1.05

FOUNDATION RECOMMENDATIONS

Based on the provided plans and results of the geotechnical investigation, it is recommended that end bents (Bents 1 and 7) be supported on steel H-piles, while intermediate bents (Bents 2 through 6) be supported on spread footings or drilled shafts.

Steel H Piles

Steel H-piles are recommended for the end bents and should be driven to practical refusal in bedrock with a minimum pile embedment of 10 feet below the existing ground surface. Practical refusal is defined as achieving a penetration of 1 inch or less after 20 hammer blows.

For planning purposes, a pile penetration of 6 inches into competent bedrock should be anticipated. Due to the expected moderate driving conditions at the bridge abutments, rock points are recommended for all piles to improve drivability and reduce the risk of damage during driving operations.

The borings performed at Bent 1 indicate that elevation of competent rock varies. Therefore, it is recommended an exploratory boring be performed at each pile location of this bent. It is Materials Division’s recommendation that the steel H piles be supported by a minimum three feet of competent bedrock. The exploratory boring should be sufficiently deep to verify the required minimum three feet of competent rock beneath tip elevation.

Greater pile lengths may be warranted due to bedrock elevation variation and highly weathered limestone and shale layers. Tabel 7 presents the recommended shallowest pile tip elevations based on borings performed at Bent 1 and Bent 7. Due to the very dense gravel encountered in Boring 7, it should be anticipated that preboring will be required at Bent 7 to achieve minimum pile penetration requirements.

Table 7: Recommended Shallowest Pile Tip Elevation

Boring No.	Bent No.	Estimated Shallowest Pile Tip Elevation, ft	Comments
1A	1	950	
1B		950.5	Soil Filled Voids
1C		Below 944.7	Rock Not Encountered in Borings
1D		Below 935.1	
1E		951	Soil Filled Voids
1F		947	
7	7	957	Preboring should be anticipated.

The elevations summarized in Table 7 are the recommended shallowest pile tip elevations utilizing boring results and engineering judgement. Actual pile lengths may vary depending on subsurface conditions and lateral load requirements determined by the Structural Engineer. As-constructed pile tip elevations can vary and must be field verified

The nominal axial resistance of these piles will be governed by their structural capacity and must be evaluated by the Structural Engineer using applicable AASHTO LRFD procedures.

For steel piling driven to refusal in competent rock, long-term, post-construction settlement is expected to be negligible.

Geotechnical Input Parameters for LPile/Group

Lateral load analysis will be performed by the Structural Engineer using commercial computer programs LPile and/or Group. Due to the large variance in depth to bedrock in the borings at Bent 1, it is recommended that subsurface parameters from Boring 1D be conservatively utilized in LPile analysis. The geotechnical input parameters are included in Attachment G.

Spread Footings

Spread footings are considered suitable for supporting foundation loads at intermediate bents where competent bedrock is located within 15 feet of the ground surface. These footings should be embedded a minimum of 2 feet into competent rock (slightly weathered to unweathered limestone). The recommended minimum footing bottom elevations are listed in Table 8.

Table 8: Recommended Shallowest Footing Bottom Elevation

Bent No.	Boring No.	Recommended Shallowest Footing Bottom Elevation, ft
2	2A	948.5
	2B	
3	3	947
	4	
	5	
4	6	945.5
5	6	948
	7	
6	6	954
	7	

The requested borings at Bent 5 and Bent 6 were either located in the railroad right of way or inaccessible. Therefore, these borings were not performed. The recommended shallowest footing bottom elevations at these bents are interpolated based on the rock elevations of nearby borings. It is recommended that a minimum of one exploratory boring be performed at each of these Bents (Bents 5 and 6).

A maximum nominal bearing capacity of 60 ksf is recommended for spread footings founded in competent limestone bedrock. Applying a resistance factor (ϕ_b) of 0.45 yields a maximum factored bearing resistance of 27 ksf. Post-construction settlement of spread footings embedded in competent bedrock is expected to be negligible.

Uplift resistance may be provided by the self-weight of the footing and superstructure dead loads. If additional uplift resistance is needed, rock anchors may be used. Design recommendations for rock anchors can be provided upon request.

Lateral resistance should be evaluated using a maximum nominal coefficient of friction ($\tan \delta$) of 0.70 for concrete on rock, along with a resistance factor for sliding (ϕ) of 0.85. Additional

lateral resistance may be derived from the passive resistance of intact foundation rock in direct contact with the footing. However, any overburden soils and the upper 2 feet of foundation rock should be excluded from passive resistance calculations. Factored passive resistance values can be provided as needed.

All existing underground utilities within planned footing excavation zones must be removed or relocated and properly backfilled. Sump pumps should be utilized to remove any water seepage into the excavation bottom. The excavation bottom should be free of standing water prior to foundation placement. Where over-excavation occurs, Class S concrete should be used for backfill. Due to moderately hard to hard limestone bedrock, excavation to plan footing depths will likely require rock excavation methods other than ripping.

Drilled Shafts

As an alternative to spread footings, drilled shafts may be utilized to support foundation loads at the intermediate bents. It is expected that 5-foot diameter shafts will be utilized, socketed 10 feet (two times the shaft diameter) into competent bedrock. A nominal tip bearing resistance (q_n) of 200 ksf and a factored tip bearing resistance (q_R) of 100 ksf are recommended. Shaft side resistance should be neglected.

It is recommended that drilled shafts be designed utilizing the estimated elevation of competent bedrock summarized in Table 9. Actual competent bedrock elevation at drilled shaft locations may vary and must be field verified. Depending on specific rock quality, deepening or shortening of shaft length can be warranted. Settlement of properly constructed drilled shafts founded into competent bedrock should be negligible.

Table 9: Recommended Shallowest Tip Elevation of Drilled Shafts

Bent No.	Boring No.	Recommended Shallowest Tip Elevation, ft
2	2A	940.5
	2B	
3	3	939.0
	4	
	5	
4	6	937.5
5	6	940
	7	
6	6	946
	7	

The recommended shallowest tip elevations at Bents 5 and 6 are interpolated based on the rock elevations of nearby borings. It is recommended that a minimum of one exploratory boring be performed at each of these Bents.

RETAINING WALL DESIGN RECOMMENDATIONS

Based on discussions with Bridge Division, it is understood a conventional cast-in-place retaining wall is planned from Station 216+40 to 216+90 and Station 219+22 to 220+04, approximately 32 to 35 feet left of centerline of Hwy. 65. It is also understood that a maximum retaining wall height of 12 feet is planned.

Design Considerations

Based on subsurface conditions and relevant wall drawings, it is recommended that the wall backfill be comprised of No. 57 stone. Section 625 Type 5 fabric should be utilized between the granular backfill and soil. Wall backfill should extend back at a slope of 0.8H:1V or flatter for fill slope and 1H:1V or flatter for cut slope as depicted in the conceptual wall backfill sketch included in Attachment H.

For the recommended wall backfill, the following parameters are recommended for design of the retaining wall.

- An angle of internal friction (ϕ_{fill}) of 38° and a unit weight of (γ_{fill}) of 105 pcf for the wall backfill comprised of No. 57 Stone.
- A coefficient of active earth pressure (k_a) of 0.22 and an equivalent fluid pressure (EFP) of 27 pcf.
- A nominal bearing resistance (q_n) of 7.5 ksf and a resistance factor (ϕ_b) of 0.55 for gravity and semi gravity walls.
- A nominal coefficient of friction ($\tan\delta$) of 0.58 and a resistance factor (ϕ_τ) of 1.0 for concrete footing sliding on compacted on-site soils.

Subgrade Preparation

It is anticipated that wall footings will be founded in the stable medium stiff clay and underlying highly weathered shale strata. On-site subgrade material should be proof-rolled and compacted prior to placing concrete for wall footings. If proof-rolling indicates unstable material, Materials Division should be contacted for additional recommendations.

Retaining Wall Global Stability

Slope stability analyses were also performed for the proposed cast-in-place retaining wall on Highway 65 to verify global stability of the structure. The calculated factors of safety under each loading condition are summarized in Table 10. The results indicate that the proposed retaining wall meets the recommended minimum factors of safety for global stability. Graphical outputs of the analyses are provided in Attachment I.

Table 10: Retaining Wall Global Stability

Design Condition	Calculated Factor of Safety	Recommended Minimum Factor of Safety
	Hwy. 65 Retaining Wall	
End of Construction (Short Term)	8.40	1.3
Long Term	3.60	1.4
Pseudo-Static (Seismic)	6.65	1.05

If there are any questions concerning these recommendations, please contact the Materials Division.

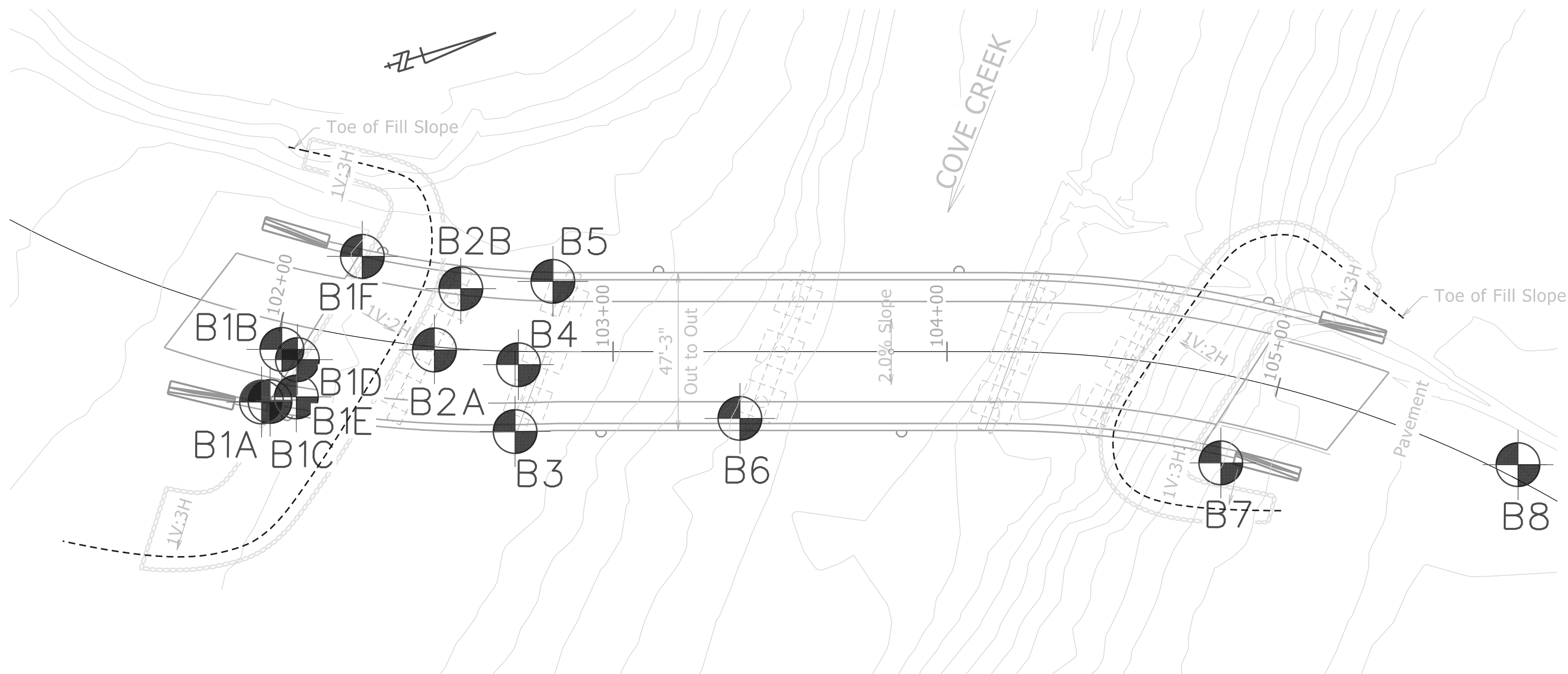


Paul Tinsley
Materials Engineer

PT:yz:pjt:pwc
 cc: State Construction Engineer
 District 9 Engineer
 G. C. File

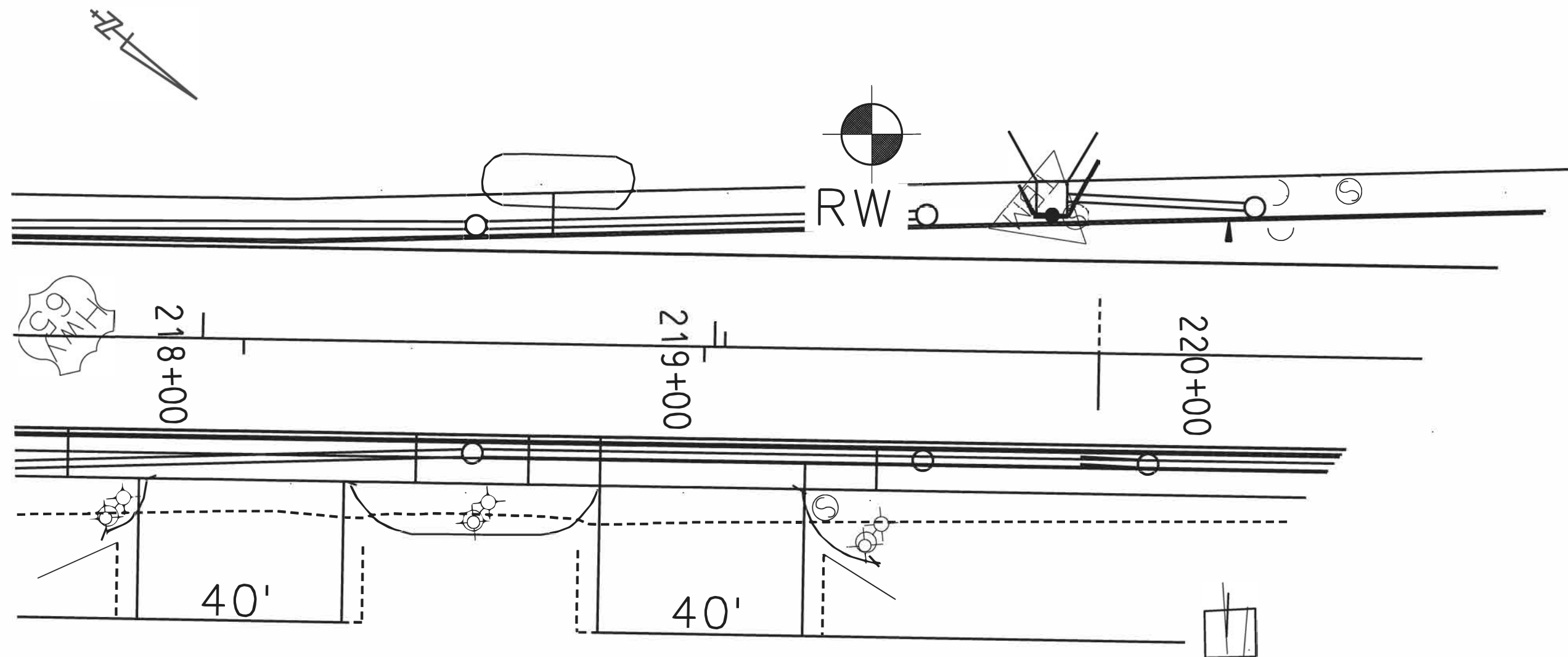
Attachment A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	AR			
JOB NO.		090672		
PLAN OF BORINGS				



PLAN OF BORINGS	
HWY. 66 REALIGNMENT (LESLIE)(S) ROUTE 66, SECTION 1 SEARCY COUNTY	
JOB NO. 090672	SHEET 1/2
NTS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	AR			
JOB NO.		090672		
PLAN OF BORINGS				



PLAN OF BORINGS	
HWY. 66 REALIGNMENT (LESLIE)(S) ROUTE 66, SECTION 1 SEARCY COUNTY	
JOB NO. 090672	SHEET 2/2
NTS	

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1A
PAGE 1 OF 1

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+00 OFFSET: 24' Right of Construction Centerline
 PARTY CHIEF: Tracy Henderson
 LOGGED BY/DRILLED BY: J. Harjo / Tracy Henderson

DATE: June 24, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 1
 COORD.: 35.827127, -92.560853
 HAMMER CORRECTION FACTOR: 1.42

COMPLETION DEPTH: 29.7

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)							PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	20	30	40	50	60	70				
			SURFACE ELEVATION: 961.1												
5			Moist, Stiff, Dark Brown Clay										4 6-9		
10			SHALE - Highly Weathered, Medium Hard, Gray										28		
			LIMESTONE - Slightly Weathered, Moderately Hard, Frequent Vertical Fractures, Gray										25 (0")	78	24
15														100	96
20			LIMESTONE - Unweathered, Moderately Hard, Gray											99	90
25														99	60
30			SHALE - Weathered, Medium Hard, Calcareous, Gray												
			Boring Terminated												
35															

REMARKS:

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1B
PAGE 1 OF 1

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+02 OFFSET: 8' Right of Construction Centerline
 PARTY CHIEF: Tracy Henderson
 LOGGED BY/DRILLED BY: Guy King / Tracy Henderson

DATE: June 24, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 1
 COORD.: 35.827158, -92.5608869
 HAMMER CORRECTION FACTOR: 1.42

COMPLETION DEPTH: 29.6

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL					
			SURFACE ELEVATION: 961.1															
5			Moist, Stiff, Brown Clay with Sand												4	4-7		
			Moist, Stiff, Brown Sandy Clay with Gravel												4	6-7		
10			Moist, Very Stiff, Brown Sandy Clay with Gravel												5	9-16		
			SHALE - Highly Weathered, Soft, Gray												10	(0")	90	66
15			LIMESTONE - Unweathered, Moderately Hard, Gray														64	60
20			Cavity															
25			LIMESTONE - Slightly Weathered, Moderately Hard, Frequent Vertical Fractures, Gray*														100	58
30			SHALE - Weathered, Soft, Calcareous, Gray														96	50
			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Slightly Weathered, Moderately Hard with Soft Layers, Gray															
			Boring Terminated															
35																		

REMARKS: *A 1.2 feet long vertical fracture was encountered at approximately 23.4 feet below ground level.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1C
PAGE 1 OF 1

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+02 OFFSET: 24' Right of Construction Centerline
 PARTY CHIEF: Tracy Henderson
 LOGGED BY/DRILLED BY: J. Harjo / Guy King

DATE: June 24, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 1
 COORD.: 35.827138, -92.5608545
 HAMMER CORRECTION FACTOR: 1.42

COMPLETION DEPTH: 16.5

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D		
					PL	20	30	40	50	60	70	LL	[Grid for moisture content data]								
			SURFACE ELEVATION: 961.2		[Moisture Content Scale: PL 10 20 30 40 50 60 70 LL]																
5	[Diagonal Hatching]	X	Moist, Stiff, Dark Brown Sandy Clay with Traces of Gravel																4 5-6		
	[Diagonal Hatching]	X	Moist, Very Stiff, Dark Brown Clay with Sand and Traces of Gravel																2 7-12		
10	[Diagonal Hatching]	X	Moist, Medium Dense, Brown Gravel with Sand																9 9-13		
15	[Diagonal Hatching]	X	Wet, Very Hard, Dark Gray Sandy Lean Clay with Gravel	CL														58	3 11-60 (8")		
	[Diagonal Hatching]	X	Wet, Stiff, Gray Lean Clay with Sand*	-														71	0 4-9		
			Boring Terminated	-																	
20																					
25																					
30																					
35																					

REMARKS: *Boring terminated at 16.5 feet below ground level due to augers becoming crooked while advancing.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1D
PAGE 1 OF 1

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 102+07 OFFSET: 10' Right of Construction Centerline
PARTY CHIEF: C. Bunton
LOGGED BY/DRILLED BY: Jeremiah Harjo / Guy King

DATE: April 1, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: Acker 2
COORD.: 35.827173, -92.560870
HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 26.4

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)		PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% TCR	% RQD
					PL	LL				
			SURFACE ELEVATION: 961.5							
5			Moist, Loose, Brown Clayey Sand with Gravel				39	2 4-6		
			Moist, Loose, Brown Clayey Gravel with Sand				23	3 5-5		
10			Moist, Medium Dense, Brown Clayey Gravel with Sand	GC			21	2 2-14		
				-						
15			Wet, Very Soft, Gray Clay	CL			91	0 0-0		
				-						
20			Wet, Medium Stiff, Gravelly Lean Clay with Sand	CL			53	3 3-5		
				-						
25			Wet, Very Loose, Clayey Gravel with Sand (Limestone Rock Fragments)*	GC			39	1 1-0		
				-						
			Limestone Rock Fragments.**	-				4 11-42 (10")		
			Boring Terminated							
30										
35										

REMARKS: *Started rotary wash at 21.3 feet below ground level due to difficulty advancing augers. **Boring terminated due to inability to advance augers.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1E
PAGE 1 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+09 OFFSET: 21' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Connor Bunton & Guy King

DATE: April 8 and 9, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.8271614, -92.5608438
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 40.4

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL					
			SURFACE ELEVATION: 961.6															
5			Moist, Stiff, Brown Gravelly Clay with Sand													3 6-7		
10			Dry, Very Dense, Brown Sand, Gravel, Cobbles, and Boulders													15 (2")		
15			LIMESTONE - Slightly Weathered, Moderately Hard with Soft Layers, Frequent Vertical Fractures, Light Gray* Cavity														63	40
20			LIMESTONE - Weathered, Moderately Hard with Soft Layers, Frequent Vertical Fractures, Light Gray Cavity														46	0
25			LIMESTONE - Weathered, Moderately Hard with Soft Layers, Frequent Vertical Fractures, Light Gray														100	20
30			LIMESTONE - Slightly Weathered, Moderately Hard with Soft Layers, Frequent Vertical Fractures, Light Gray														100	86
35			LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered with Weathered														100	72

REMARKS: *Cavities or soft soil zones within the rock were encountered at approximately 13.7 and at 16.6 feet below ground level.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 1F
PAGE 1 OF 1

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+19.5 OFFSET: 24' Left of Construction Centerline
 PARTY CHIEF: Tracy Henderson
 LOGGED BY/DRILLED BY: Guy King / Tracy Henderson

DATE: June 25, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 1
 COORD.: -92.560965, 35.827248
 HAMMER CORRECTION FACTOR: 1.42

COMPLETION DEPTH: 34

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 962.0															
5			Moist, Stiff, Brown Sandy Clay with Traces of Gravel												4	6-7		
			Moist, Very Stiff, Brown Sandy Clay with Gravel												7	13-11		
10			Moist, Loose, Brown Clayey Gravel with Sand												4	5-5		
			Wet, Medium Stiff, Light Gray Sandy Clay with Some Gravel (Rock Fragments)												4	3-4		
15			LIMESTONE - Slightly Weathered, Moderately Hard, Frequent Vertical Fractures, Gray*														84	72
20																	98	78
25			SHALE - Weathered, Medium Hard to Soft, Calcareous, Gray															
			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Soft Layers, Gray														96	83
30			LIMESTONE WITH OCCASIONAL SHALE PARTINGS AND SEAMS - Unweathered, Hard, Gray														100	76
35			Boring Terminated															

REMARKS: *Auger refusal at approximately 14.3 feet below ground level.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 2A
PAGE 1 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+46 OFFSET: 1' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Jeremiah Harjo

DATE: March 19, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.807277, -92.560851
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 40

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 963.1															
5		X	Moist, Medium Stiff, Dark Brown Sandy Clay with Some Rock Fragments											50	2 2-3			
			Moist, Dark Brown Sandy Lean Clay with Trace Gravel	CL										50				
10		X	Moist, Very Dense, Dark Brown Poorly Graded Sand with Clay and Gravel (Limestone Rock Fragment)	SP-SC										10	1 3-24 (11") 14 (6")			
15			LIMESTONE - Unweathered, Moderately Hard, Frequent Healed Fractures, Light Gray													100	62	
20			LIMESTONE - Unweathered, Moderately Hard, Light Gray*													100	99	
25			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Light and Dark Gray													97	68	
30			LIMESTONE - Unweathered, Moderately Hard, Frequent Vertical Fractures, Gray													98	76	
35			LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS													100	86	

REMARKS: *Total water loss from approximately 20.0 feet below ground level through remainder of boring likely due to abundance of vertical fractures.

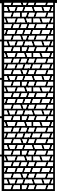
**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 2A
PAGE 2 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+46 OFFSET: 1' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Jeremiah Harjo

DATE: March 19, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.807277, -92.560851
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 40

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D		
					PL	10	20	30	40	50	60	70	LL								
40			SURFACE ELEVATION: 963.1 AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Light and Dark Gray																	95	80
45			Boring Terminated																		
50																					
55																					
60																					
65																					
70																					

REMARKS: *Total water loss from approximately 20.0 feet below ground level through remainder of boring likely due to abundance of vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 2B
PAGE 1 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+51 OFFSET: 18' Left of Construction Centerline
 PARTY CHIEF: Connor Bunton
 LOGGED BY/DRILLED BY: Jeremiah Harjo & Stanley Bates / Guy King

DATE: March 19 and 24, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827303, -92.560895
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 53.7

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)						PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL					LL				
			SURFACE ELEVATION: 963.0											
			Moist, Loose, Dark Brown Clayey Sand with Some Gravel	SC							40	2 2-4		
5			Moist, Loose, Brown Sandy Silt with Trace Gravel	ML							54	2 3-4		
			Moist, Medium Dense, Brown Clayey Gravel with Sand								22	3 6-6		
10			Moist, Loose, Brown Clayey Gravel with Sand								21	1 4-6		
15			LIMESTONE - Slightly Weathered, Moderately Hard, Occasional Fractures, Light Gray										92	92
20			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Moderately Hard with Soft Layers, Gray										100	100
25			LIMESTONE WITH OCCASIONAL SHALE PARTINGS - Unweathered, Moderately Hard, Gray										96	94
30													98	92
35													98	86

REMARKS: *Total water loss at approximately 33.7 feet below ground level.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 2B
PAGE 2 OF 2

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 102+51 OFFSET: 18' Left of Construction Centerline
PARTY CHIEF: Connor Bunton
LOGGED BY/DRILLED BY: Jeremiah Harjo & Stanley Bates / Guy King

DATE: March 19 and 24, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: Acker 2
COORD.: 35.827303, -92.560895
HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 53.7

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 963.0																
40			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Moderately Hard, Gray*															100	100
45																		100	66
50																		100	64
55			SHALE - Unweathered, Medium Hard, Calcareous, Gray															100	100
			Boring Terminated																
60																			
65																			
70																			

REMARKS: *Total water loss at approximately 33.7 feet below ground level.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 3

PAGE 1 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+69 OFFSET: 22' Right of Construction Centerline
 PARTY CHIEF: Connor Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Guy King

DATE: March 26 and 31, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827320, -92.560754
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 49.2

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)						PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL					LL				
			SURFACE ELEVATION: 963.8											
5			Moist, Loose, Dark Brown Silty Sand with Gravel							36	2 3-4			
			Moist, Loose, Brown Sandy Silt with Trace Gravel	ML						51	1 3-4			
				-										
10			Moist, Medium Dense, Dark Brown Silty Gravel with Sand	GM						23	5 7-4			
				-										
				GM						24	*			
15			LIMESTONE - Unweathered, Moderately Hard, Frequent Fractures, Light Gray									100	30	
			LIMESTONE - Unweathered, Soft to Medium Hard, Occasional Fractures, Light Gray									100	75	
20			SHALE WITH FREQUENT LIMESTONE SEAMS AND LAYERS - Weathered, Soft, Dark Gray											
			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard, Frequent Vertical Fractures, Gray									96	94	
25			LIMESTONE WITH OCCASIONAL SHALE PARTINGS - Unweathered, Moderately Hard, Frequent Vertical Fractures, Gray*									100	76	
30			LIMESTONE WITH FREQUENT SHALE SEAMS - Unweathered, Moderately Hard, Gray									100	98	
35														

REMARKS: *Blow counts were not recorded for the sample at 10.0 feet below ground level (BGL)**Total water loss at approximately 24.2 feet BGL.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 3
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JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 102+69 OFFSET: 22' Right of Construction Centerline
PARTY CHIEF: Connor Bunton
LOGGED BY/DRILLED BY: Stanley Bates / Guy King

DATE: March 26 and 31, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: Acker 2
COORD.: 35.827320, -92.560754
HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 49.2

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL					
			SURFACE ELEVATION: 963.8															
40			LIMESTONE WITH FREQUENT SHALE SEAMS AND LAYERS - Unweathered, Moderately Hard, Gray														100	80
																	98	96
45			LIMESTONE WITH FREQUENT SHALE SEAMS AND LAYERS - Unweathered, Moderately Hard, Frequent Fractures, Light Gray															
			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Moderately Hard, Gray														100	43
50			Boring Terminated															
55																		
60																		
65																		
70																		

REMARKS: *Blow counts were not recorded for the sample at 10.0 feet below ground level (BGL)**Total water loss at approximately 24.2 feet BGL.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 4
PAGE 1 OF 3

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 102+72 OFFSET: 2' Right of Construction Centerline
PARTY CHIEF: Connor Bunton
LOGGED BY/DRILLED BY: Jeremiah Harjo / Connor Bunton & Guy King

DATE: March 17, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: Acker 2
COORD.: 35.827346, -92.560815
HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 90

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 963.6															
5		X	Moist, Loose, Dark Brown Clayey Sand with Some Sandstone Rock Fragments	SC											35	2 2-4		
		X	Moist, Medium Stiff, Dark Brown Sandy Clay	CL											50	1 2-4		
			Brown Clayey Sand with Gravel	-											46			
10		X	Moist, Loose, Brown Rock Fragments with Clay												44	6 5-3		
			Moist, Medium Stiff, Dark Brown Clayey Sand with Rock Fragments															
15																10 (2")		
			LIMESTONE - Unweathered, Moderately Hard, Light Gray														93	93
20																		
			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Gray														98	85
25																		
			LIMESTONE - Unweathered, Moderately Hard, Frequent Vertical Fractures, Light Gray*														97	72
30																		
																	100	94
35																		

REMARKS: *Total water loss from approximately 25.0 feet below ground level through remainder of boring likely due to abundance of vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 4
PAGE 2 OF 3

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+72 OFFSET: 2' Right of Construction Centerline
 PARTY CHIEF: Connor Bunton
 LOGGED BY/DRILLED BY: Jeremiah Harjo / Connor Bunton & Guy King

DATE: March 17, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827346, -92.560815
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 90

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)							PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D		
					PL	10	20	30	40	50	60					70	LL
			SURFACE ELEVATION: 963.6														
40			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Occasional Vertical Fractures, Gray												97	88	
45																100	78
50																	82
55			SHALE - Slightly Weathered to Weathered, Medium Hard, Calcareous, Gray												74	46	
60			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Occasional Vertical Fractures, Gray												98	80	
65																100	87
70																	88

REMARKS: *Total water loss from approximately 25.0 feet below ground level through remainder of boring likely due to abundance of vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 4
PAGE 3 OF 3

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 102+72 OFFSET: 2' Right of Construction Centerline
PARTY CHIEF: Connor Bunton
LOGGED BY/DRILLED BY: Jeremiah Harjo / Connor Bunton & Guy King

DATE: March 17, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: Acker 2
COORD.: 35.827346, -92.560815
HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 90

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 963.6																
75			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Occasional Soft Layers, Gray															100	85
																		100	99
80																		100	99
85																		100	99
90																			
			Boring Terminated																
95																			
100																			
105																			

REMARKS: *Total water loss from approximately 25.0 feet below ground level through remainder of boring likely due to abundance of vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 5
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JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+82 OFFSET: 21' Left of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Connor Bunton & Guy King

DATE: March 25, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827379, -92.560877
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 54

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)		PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	LL				
			SURFACE ELEVATION: 963.3							
5			Moist, Loose, Brown Clayey Sand with Trace Gravel				32	2 3-3		
				CL			54	2 2-4		
			Moist, Medium Stiff, Brown Sandy Lean Clay	-			64	2 3-5		
10				CL						
				-						
			Moist, Very Loose, Brown Clayey Sand with Gravel (Rock Fragments)	SC			41	1 3-1		
15			LIMESTONE - Unweathered, Moderately Hard, Light Gray						87	43
20			SHALE - Highly Weathered, Soft to Medium Hard, Gray							
			LIMESTONE WITH OCCASIONAL SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard, Frequent Vertical Fractures, Gray						94	82
25			LIMESTONE - Unweathered, Moderately Hard, Frequent Vertical Fractures, Gray						98	97
30			LIMESTONE WITH OCCASIONAL SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard, Gray*						100	90
35				-						

REMARKS: *Total water loss from approximately 29.0 feet below ground level through remainder of boring likely due to frequent vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 5
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JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 102+82 OFFSET: 21' Left of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Connor Bunton & Guy King

DATE: March 25, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827379, -92.560877
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 54

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL					
			SURFACE ELEVATION: 963.3															
40			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard, Gray														96	70
45			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Moderately Hard, Gray														100	86
50			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Moderately Hard, Gray														94	80
55			Boring Terminated															
60																		
65																		
70																		

REMARKS: *Total water loss from approximately 29.0 feet below ground level through remainder of boring likely due to frequent vertical fractures.

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 6
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JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 103+38 OFFSET: 20' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Jessie Burdine

DATE: April 15, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827449, -92.560689
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 54.4

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	10	20	30	40	50	60	70	LL					
			SURFACE ELEVATION: 956.4															
5			Moist, Medium Dense, Brown Well Graded Sand with Silt and Gravel	SW-SM										10	4 4-7			
			Moist, Medium Dense, Brown Sand with Gravel												14 13-14			
10			Wet, Very Dense, Brown and Gray Gravel (Limestone Rock Fragments)												10 (1")		50 0	
15			LIMESTONE WITH OCCASIONAL SHALE SEAMS - Slightly Weathered, Hard with Moderately Hard Layers, Gray														80 78	
20			LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS AND SEAMS - Unweathered, Hard with Moderately Hard Layers, Gray														100 92	
25			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Soft Layers, Gray														100 66	
30			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Hard Moderately with Hard Layers, Gray														100 56	
35			LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Hard Moderately with Hard Layers, Gray														100 40	

REMARKS:

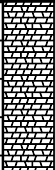

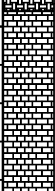
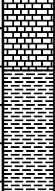
**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 6
PAGE 2 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 103+38 OFFSET: 20' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: Stanley Bates / Jessie Burdine

DATE: April 15, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: Acker 2
 COORD.: 35.827449, -92.560689
 HAMMER CORRECTION FACTOR: 1.55

COMPLETION DEPTH: 54.4

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 956.4															
40			LIMESTONE WITH FREQUENT SHALE PARTINGS, SEAMS, AND LAYERS - Unweathered, Hard Moderately Soft Layers, Gray														100	82
45			SHALE INTERBEDDED WITH LIMESTONE - Unweathered, Medium Hard with Hard Layers, Frequent Fractures, Gray														100	48
50			LIMESTONE - Unweathered, Hard, Frequent Fractures and Calcite Veins, Gray														100	60
55			SHALE - Unweathered, Medium Hard with Soft Layers, Fossiliferous, Gray														88	36
60			Boring Terminated															
65																		
70																		

REMARKS:

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 7
PAGE 1 OF 2

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 104+89 OFFSET: 26' Right of Construction Centerline
PARTY CHIEF: C. Bunton
LOGGED BY/DRILLED BY: S. Bates / J. Burdine

DATE: April 16, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: CME 75
COORD.: 35.827873, -92.560497
HAMMER CORRECTION FACTOR: 1.57

COMPLETION DEPTH: 41.7

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D	
					PL	10	20	30	40	50	60	70	LL						
SURFACE ELEVATION: 972.9																			
5	[Diagonal Hatching]	X	Moist, Medium Stiff, Brown Lean Clay with Sand	-												76	1 3-3		
			CL																
	[Diagonal Hatching]	X	Moist, Stiff, Brown Lean Clay with Sand and Some Gravel	-											79	1 3-11			
			CL																
10	[Circular Hatching]	X	Dry, Very Dense, Gravel (Limestone Rock Fragments)													4 36-45			
15	[Brick Hatching]		LIMESTONE - Unweathered, Moderately Hard, Light Gray													20 (2")		100 42	
			SHALE - Weathered, Soft to Medium Hard, Calcareous, Gray																98 64
20	[Brick Hatching]		LIMESTONE WITH FREQUENT SHALE PARTINGS AND SEAMS - Unweathered, Moderately Hard with Hard Layers, Light Gray															100 84	
																			100 64
25	[Brick Hatching]		LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS, LAYERS, AND SEAMS -															100 70	
30	[Brick Hatching]		LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS, LAYERS, AND SEAMS -															100 70	
35	[Brick Hatching]		LIMESTONE WITH FREQUENT TO OCCASIONAL SHALE PARTINGS, LAYERS, AND SEAMS -															100 70	

REMARKS:

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 7
PAGE 2 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 104+89 OFFSET: 26' Right of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: S. Bates / J. Burdine

DATE: April 16, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: CME 75
 COORD.: 35.827873, -92.560497
 HAMMER CORRECTION FACTOR: 1.57

COMPLETION DEPTH: 41.7

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% TCR	% RQD
					PL	10	20	30	40	50	60	70	LL						
			SURFACE ELEVATION: 972.9																
			Unweathered, Moderately Hard with Hard Layers, Light Gray																
40																	100	44	
			Boring Terminated																
45																			
50																			
55																			
60																			
65																			
70																			

REMARKS:

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 8
PAGE 1 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 105+75 OFFSET: 4' Left of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: S. Bates / J. Burdine

DATE: April 22, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: CME 75
 COORD.: 32.828095, -92.560416
 HAMMER CORRECTION FACTOR: 1.57

COMPLETION DEPTH: 37.3

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)		PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% T C R	% R Q D
					PL	LL				
			SURFACE ELEVATION: 977.1							
			Moist, Medium Stiff, Brown Sandy Lean Clay	CL			70	1 2-4		
5			Moist, Stiff, Brown Fat Clay with Sand	CH			84	2 4-9		
			Moist, Very Stiff, Brown Fat Clay with Sand	CH			81	4 10-6		
10			LIMESTONE - Weathered, Moderately Hard, Gray					15 (1")		
									100	69
15			LIMESTONE - Slightly Weathered, Moderately Hard, Gray						100	98
20									100	88
25			SHALE WITH OCCASIONAL LIMESTONE LAYERS - Highly Weathered, Soft, Gray						100	40
			LIMESTONE WITH OCCASIONAL SHALE LAYERS AND SEAMS - Unweathered, Moderately Hard, Gray							
30			LIMESTONE - Unweathered, Moderately Hard, Gray						98	86
35			LIMESTONE WITH OCCASIONAL SHALE LAYERS AND SEAMS -							

REMARKS:


**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. 8
PAGE 2 OF 2

JOB NO. 090672 Searcy County
 JOB NAME: Highway 66 Realignment (Leslie) (S)
 Route 66, Section 1
 STATION: 105+75 OFFSET: 4' Left of Construction Centerline
 PARTY CHIEF: C. Bunton
 LOGGED BY/DRILLED BY: S. Bates / J. Burdine

DATE: April 22, 2025
 TYPE OF DRILLING:
 Hollow Stem Auger - Diamond Core
 EQUIPMENT: CME 75
 COORD.: 32.828095, -92.560416
 HAMMER CORRECTION FACTOR: 1.57

COMPLETION DEPTH: 37.3

DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)											PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% TCR	% RQD
					PL	20	30	40	50	60	70	LL							
			Unweathered, Hard with Moderately Hard Layers, Gray																
40			Boring Terminated																
45																			
50																			
55																			
60																			
65																			
70																			

REMARKS:

**ARKANSAS DEPARTMENT OF TRANSPORTATION
MATERIALS DIVISION - GEOTECHNICAL SECTION**

BORING NO. RW
PAGE 1 OF 1

JOB NO. 090672 Searcy County
JOB NAME: Highway 66 Realignment (Leslie) (S)
Route 66, Section 1
STATION: 219+30 OFFSET: 54' Left of Highway 65 Centerline
PARTY CHIEF: C. Bunton
LOGGED BY/DRILLED BY: S. Bates / J. Burdine

DATE: April 21, 2025
TYPE OF DRILLING:
Hollow Stem Auger - Diamond Core
EQUIPMENT: CME 75
COORD.: 35.827397, -92.562288
HAMMER CORRECTION FACTOR: 1.57

COMPLETION DEPTH: 32.7

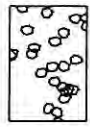
DEPTH FT.	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SOIL GROUP	MOISTURE CONTENT (%)										PERCENT PASSING NO. 200 SIEVE	NO. OF BLOWS PER 6-IN.	% TCR	% RQD			
					PL	20	30	40	50	60	70	LL									
SURFACE ELEVATION: 977.4																					
5	[Cross-hatched pattern]	X	Moist, Medium Dense, Brown Clayey Gravel with Sand	GM												21	5 9-7				
																		29	4 6-9		
10						Moist, Medium Dense, Brown Silty Gravel with Sand	-												22	3 4-7	
15	[Diagonal hatched pattern]	X	Moist, Medium Stiff, Brown Sandy Lean Clay with Some Gravel	CL												65	1 2-6				
						SHALE - Highly Weathered, Medium Hard, Calcareous, Gray													20 (4")		0 0
20	[Diagonal hatched pattern]	X	SHALE - Slightly Weathered With Highly Weathered Layers, Medium Hard with Soft Layers, Calcareous, Gray*	-															14 0		
25						SHALE - Highly Weathered, Soft, Calcareous, Gray															100 20
30						LIMESTONE WITH FREQUENT SHALE LAYERS AND SEAMS - Unweathered with Weathered Layers, Moderately Hard with Soft Layers, Gray															
35			Boring Terminated																		

REMARKS: *No core recovery from 17.0 to 17.7 feet below ground level likely due to the coring process and highly weathered shale.

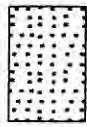
LEGEND

SOIL TYPES

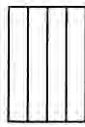
(SHOWN IN SYMBOL COLUMN)
(PREDOMINANT TYPE SHOWN HEAVY)



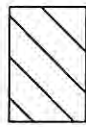
GRAVEL



SAND



SILT



CLAY



ORGANIC
MATTER

SAMPLER TYPES

(SHOWN IN SAMPLE COLUMN)

SHELBY TUBE



UNDISTURBED
SAMPLE
RECOVERY



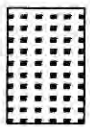
DISTURBED
SAMPLE
RECOVERY



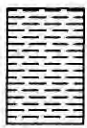
NO
RECOVERY

ROCK TYPES

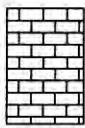
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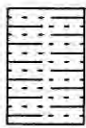
SANDSTONE



SHALE
or
SILTSTONE



LIMESTONE
or
DOLOMITE

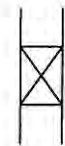


ALTERNATING
LAYERS of
SHALE and
SANDSTONE

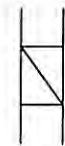


OTHER

SPLIT SPOON

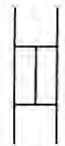


SAMPLE
RECOVERY



NO
RECOVERY

ROCK CORING



% RECOVERY
INDICATED ON LOGS

TERMS DESCRIBING CONSISTENCY OR CONDITION

GRANULAR SOIL		CLAY		CLAY-SHALE		SHALE	
*N' Value	Density	*N' Value	Consistency	*N' Value	Consistency	*N' Value	Consistency
0-4	Very Loose	0-1	Very Soft	0-1	Very Soft		
5-10	Loose	2-4	Soft	2-4	Soft	31-60	Soft
11-30	Medium Dense	5-8	Medium Stiff	5-8	Medium Stiff	Over 60	
31-50	Dense	9-15	Stiff	9-15	Stiff	More than 2'	
Over 50	Very Dense	16-30	Very Stiff	16-30	Very Stiff	Penetration	
		31-60	Hard	31-60	Hard	in 60 Blows	Medium Hard
		Over 60	Very Hard	Over 60	Very Hard	Less than 2'	
						Penetration	
						in 60 Blows	Hard

1. Ground water elevations indicated on boring logs represent ground water elevations at date or time shown on boring log. Absence of water surface implies that no ground water data is available but does not necessarily mean that ground water will not be encountered at locations or within the vertical reaches of these borings.
2. Borings represent subsurface conditions at their respective locations for their respective depths. Variations in conditions between or adjacent to boring locations may be encountered.
3. Terms used for describing soils according to their texture or grain size distribution are in accordance with the Unified Soil Classification System.

Standard Penetration Test – Driving a 2.0" O.D., 1-3/8" I.D. sampler a distance of 1.0 foot into undisturbed soil with a 140 pound hammer free falling a distance of 30 inches. It is customary to drive the spoon 6.0 inches to seat into undisturbed soil, then perform the test. The number of hammer blows for seating the spoon and performing the test are recorded for each 6 inches of penetration on the drill log. The field "N" Value (N_f) can be obtained by

adding the bottom two numbers for example: $\frac{6}{8-9} \Rightarrow 8 + 9 = 17 \text{ blows/ft}$. The "N" Value corrected to 60%

efficiency (N_{60}) can be obtained by multiplying N_f by the hammer correction factor published on the boring log.

Attachment B



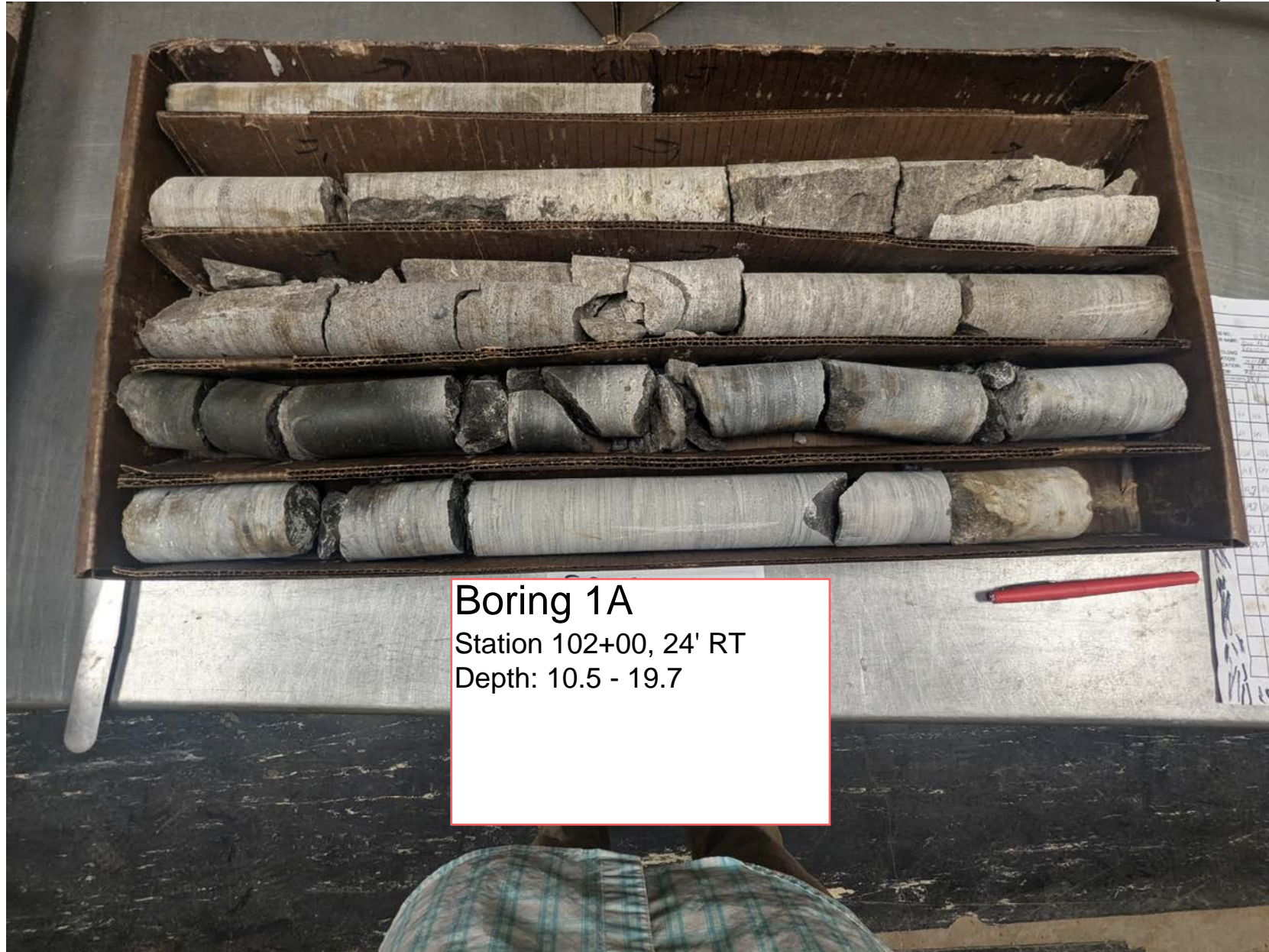
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1A
Station 102+00, 24' RT
Depth: 10.5 - 19.7



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





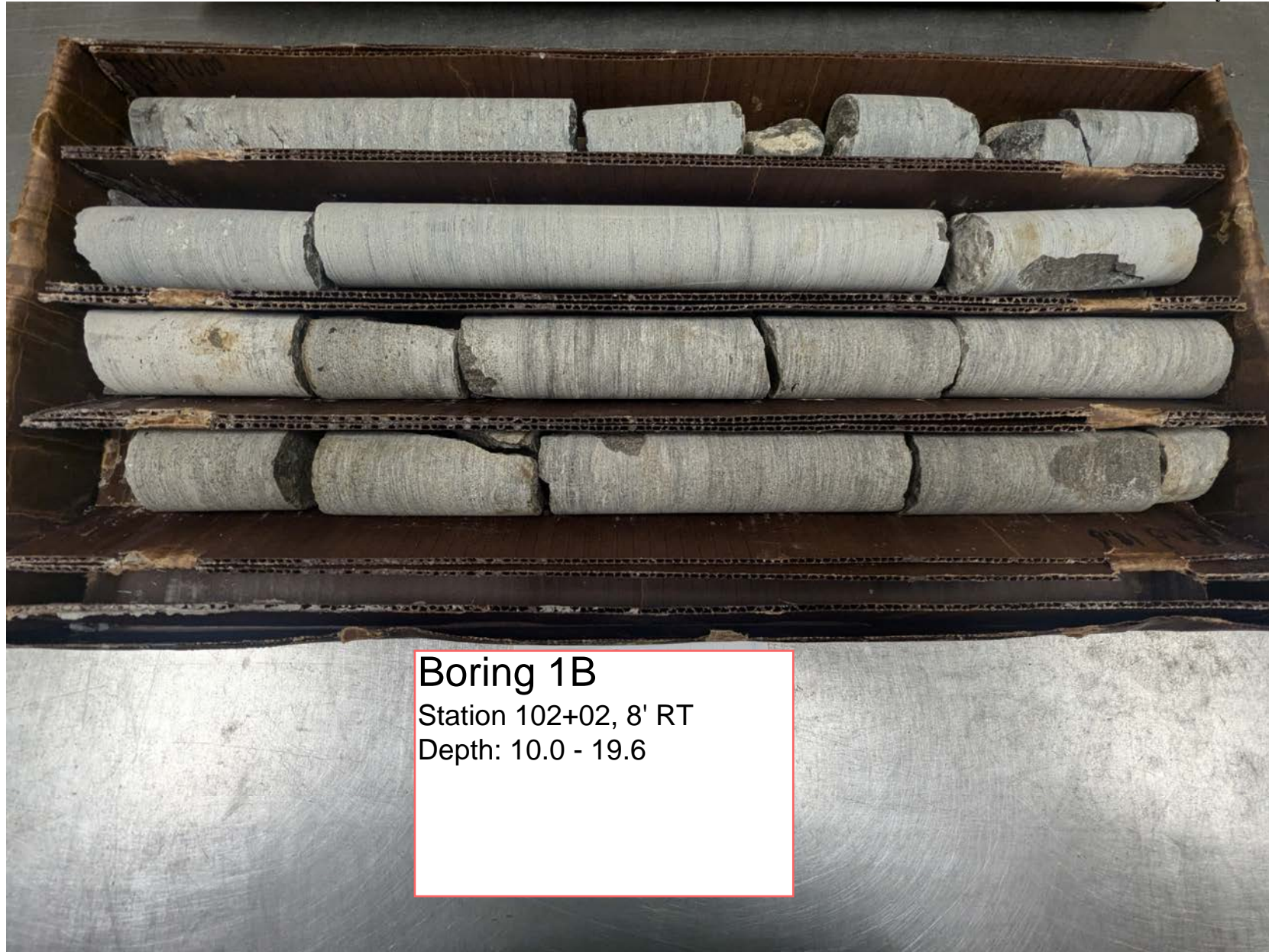
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





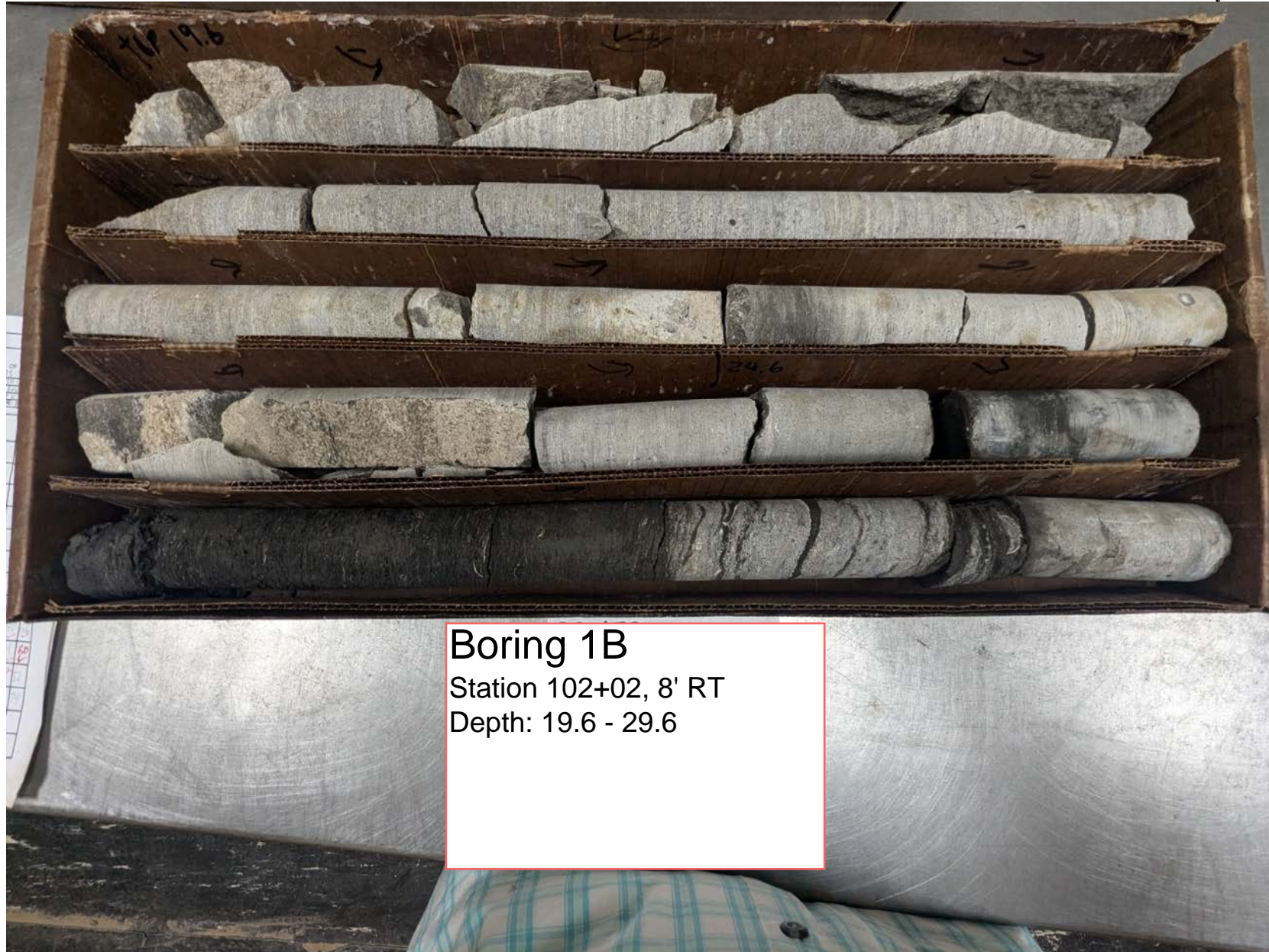
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1B
Station 102+02, 8' RT
Depth: 19.6 - 29.6



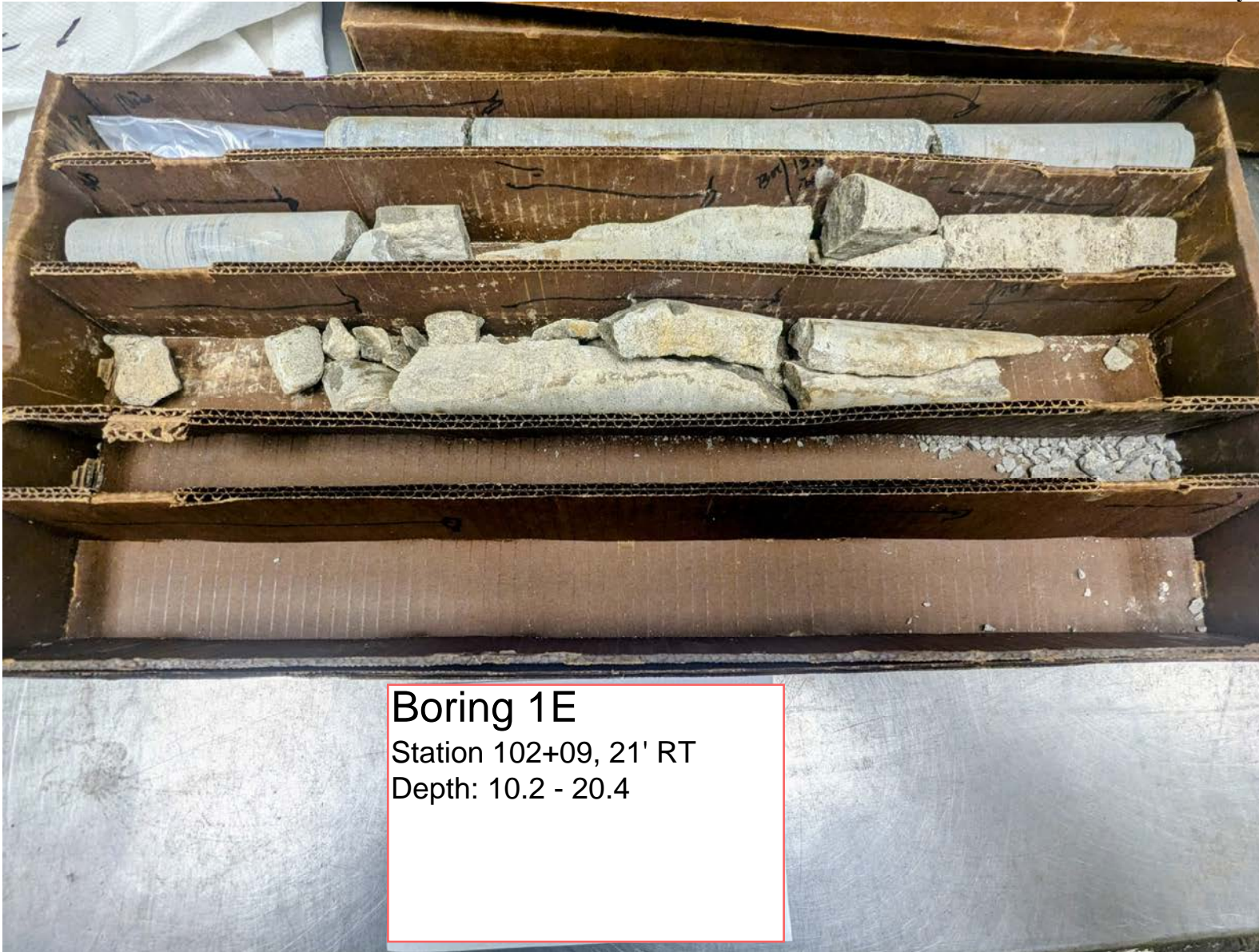
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1E
Station 102+09, 21' RT
Depth: 10.2 - 20.4



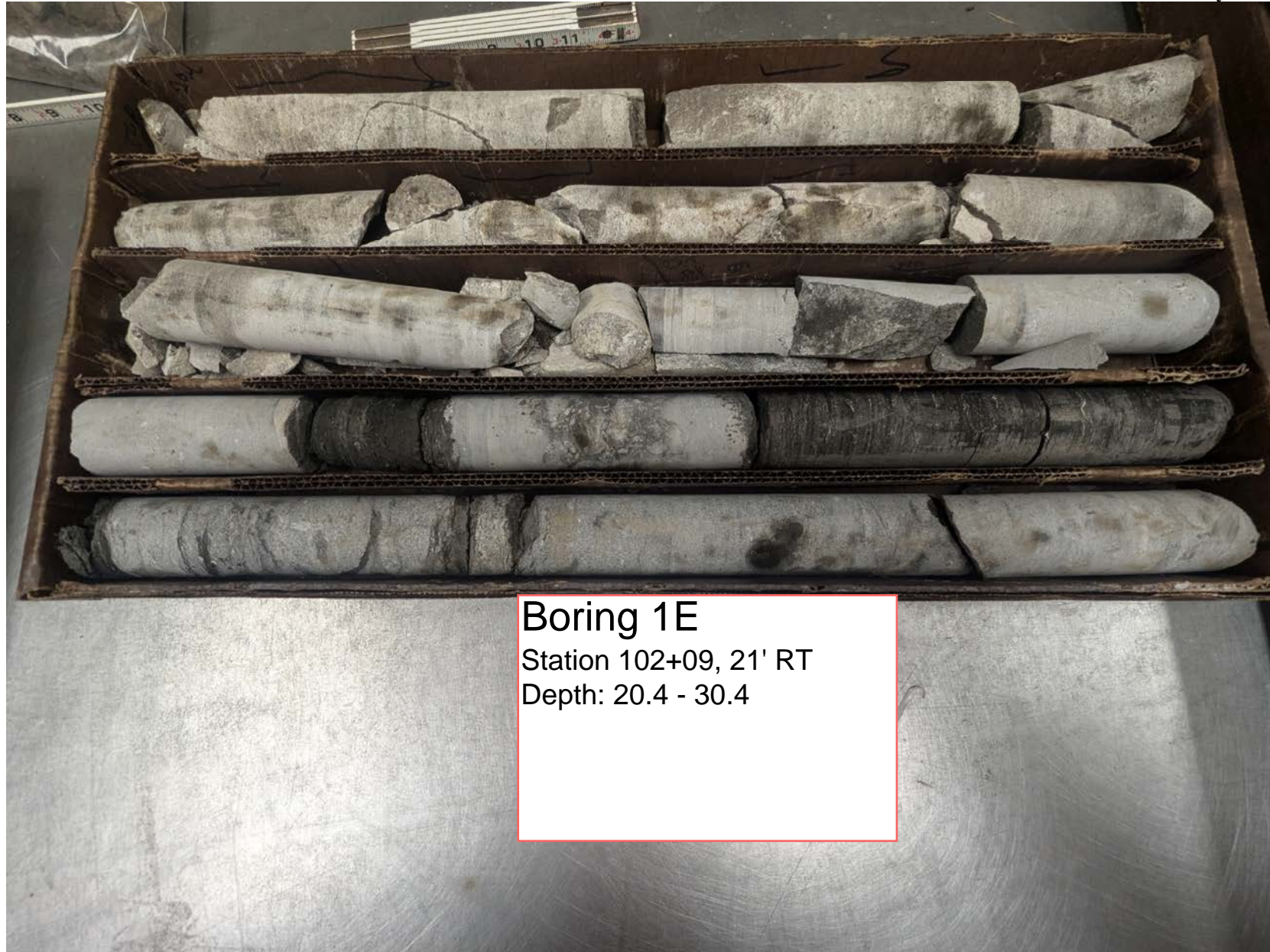
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1E
Station 102+09, 21' RT
Depth: 30.4-40.4



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1F

Station 102+19.5, 24' LT

Depth: 14.3 - 24.0



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 1F
Station 102+19.5, 24' LT
Depth: 24.0-34.0



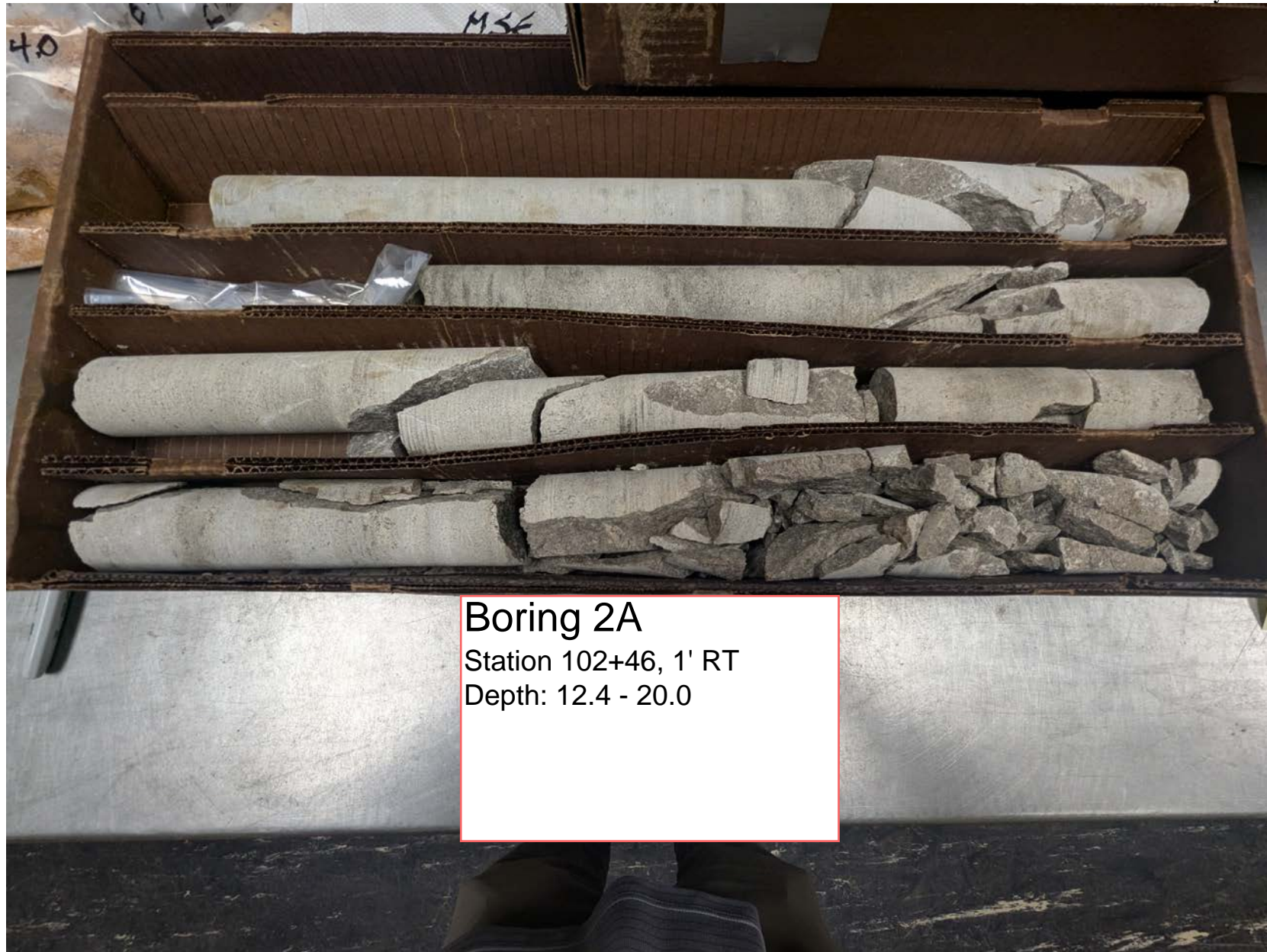
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 2A

Station 102+46, 1' RT

Depth: 12.4 - 20.0



ROCK CORE PHOTOS

Job No.:090672

Site No.: 1

Made by: PWC

Checked by:PJT





ROCK CORE PHOTOS

Job No.:090672
Site No.: 1

Made by: PWC
Checked by:PJT



Boring 2A
Station 102+46, 1' RT
Depth: 30.0 - 40.0



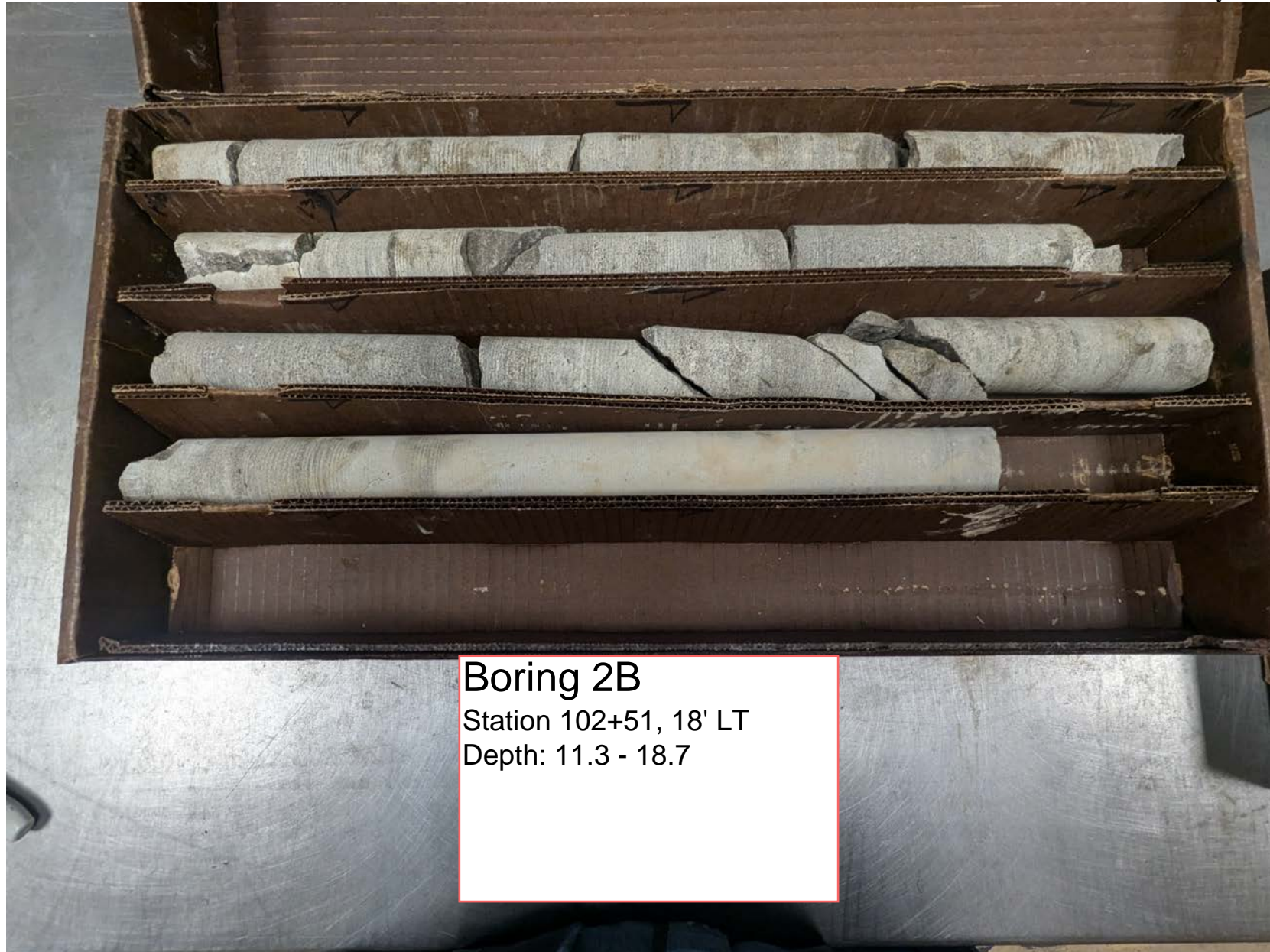
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 2B
Station 102+51, 18' LT
Depth: 11.3 - 18.7



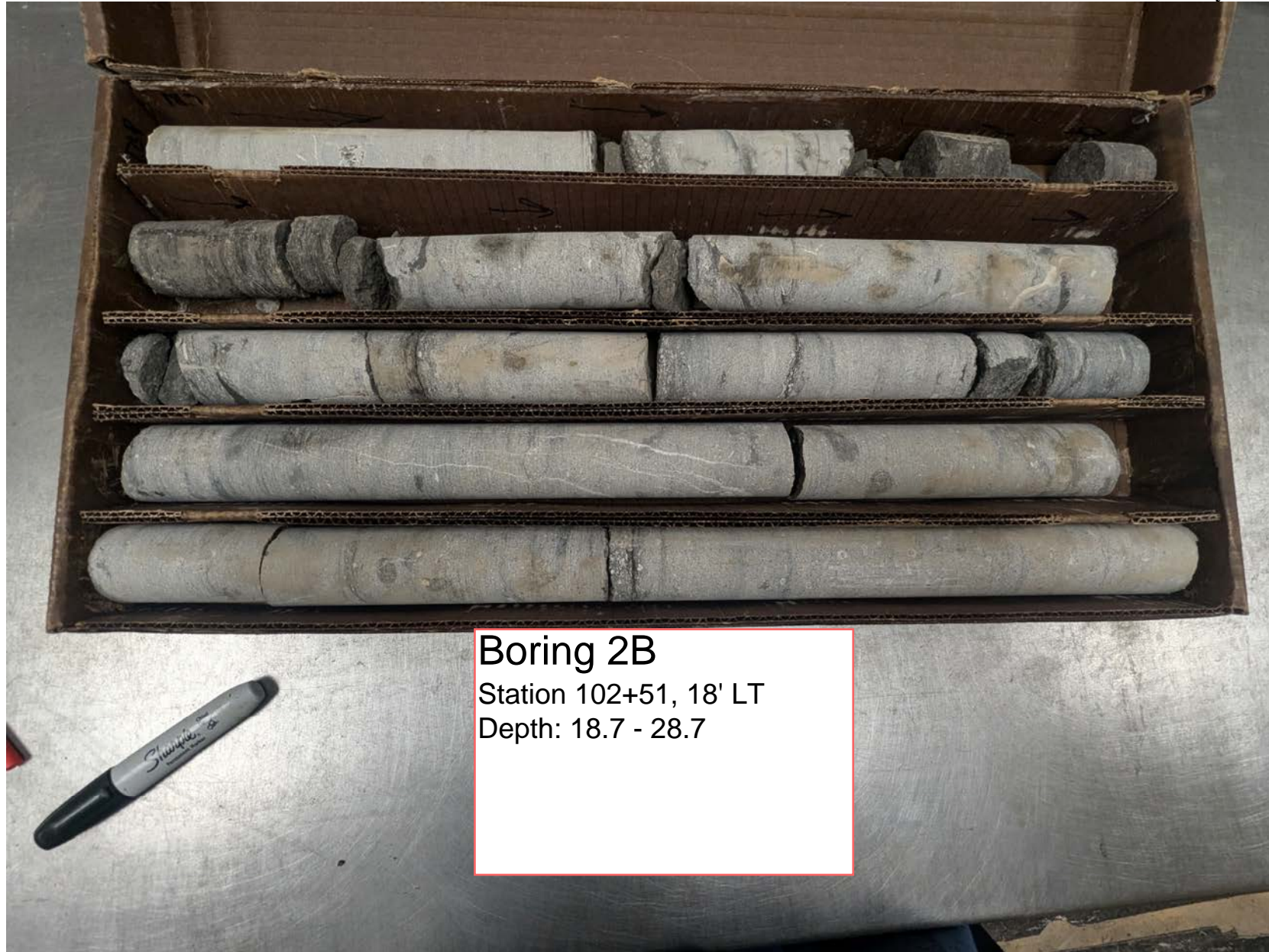
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





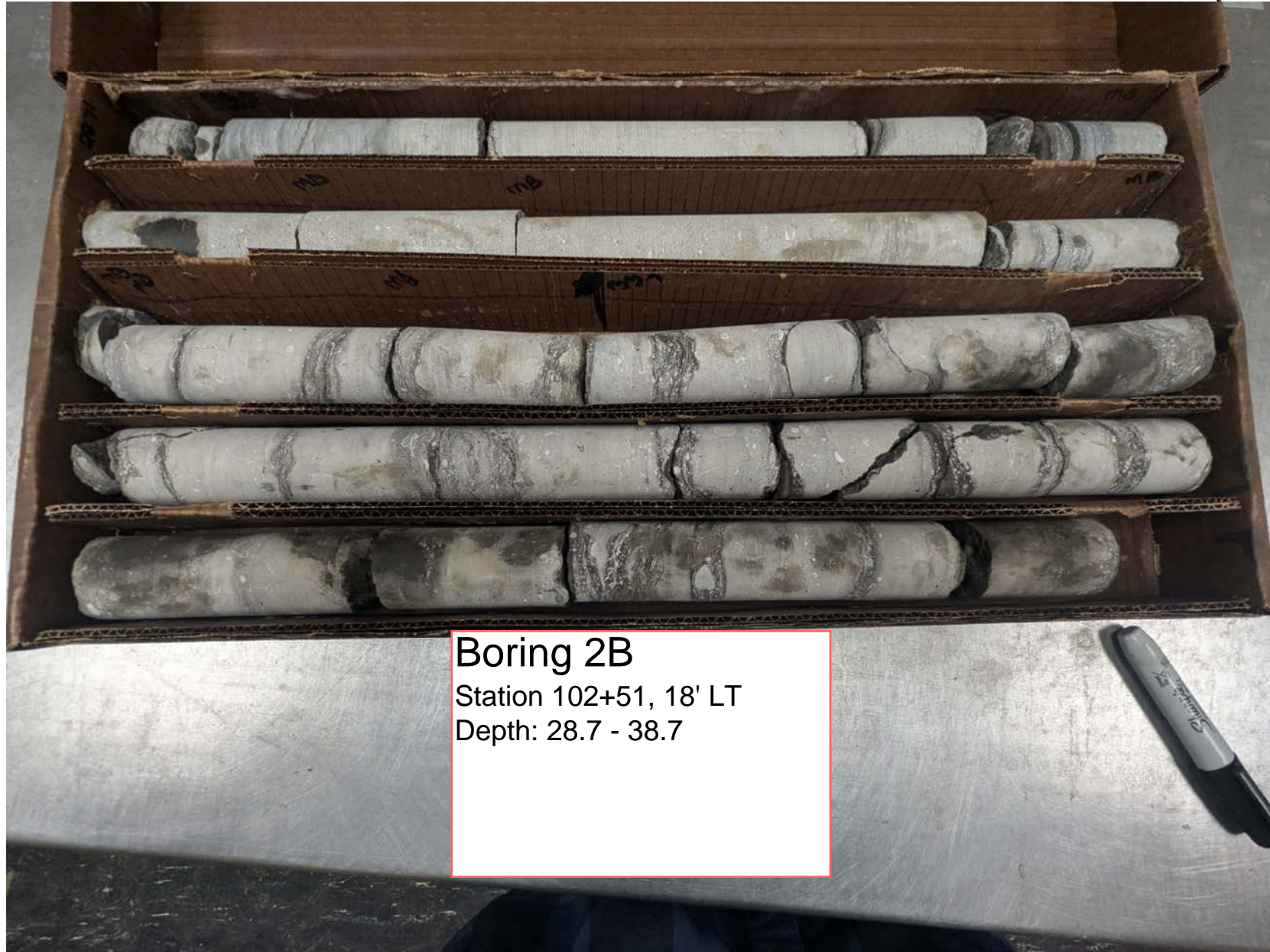
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 2B
Station 102+51, 18' LT
Depth: 28.7 - 38.7

ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 2B

Station 102+51, 18' LT

Depth: 38.7 - 48.7



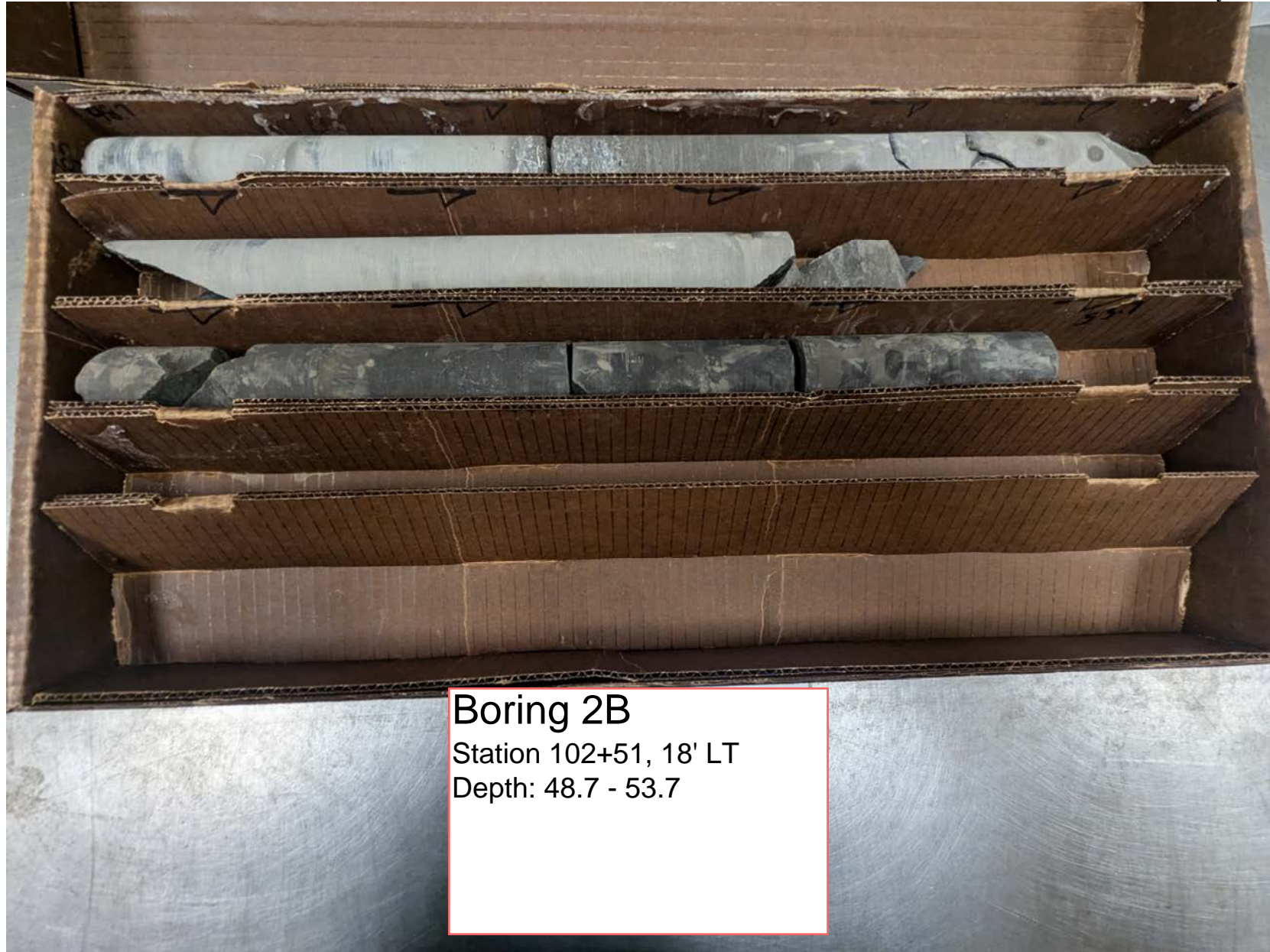
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





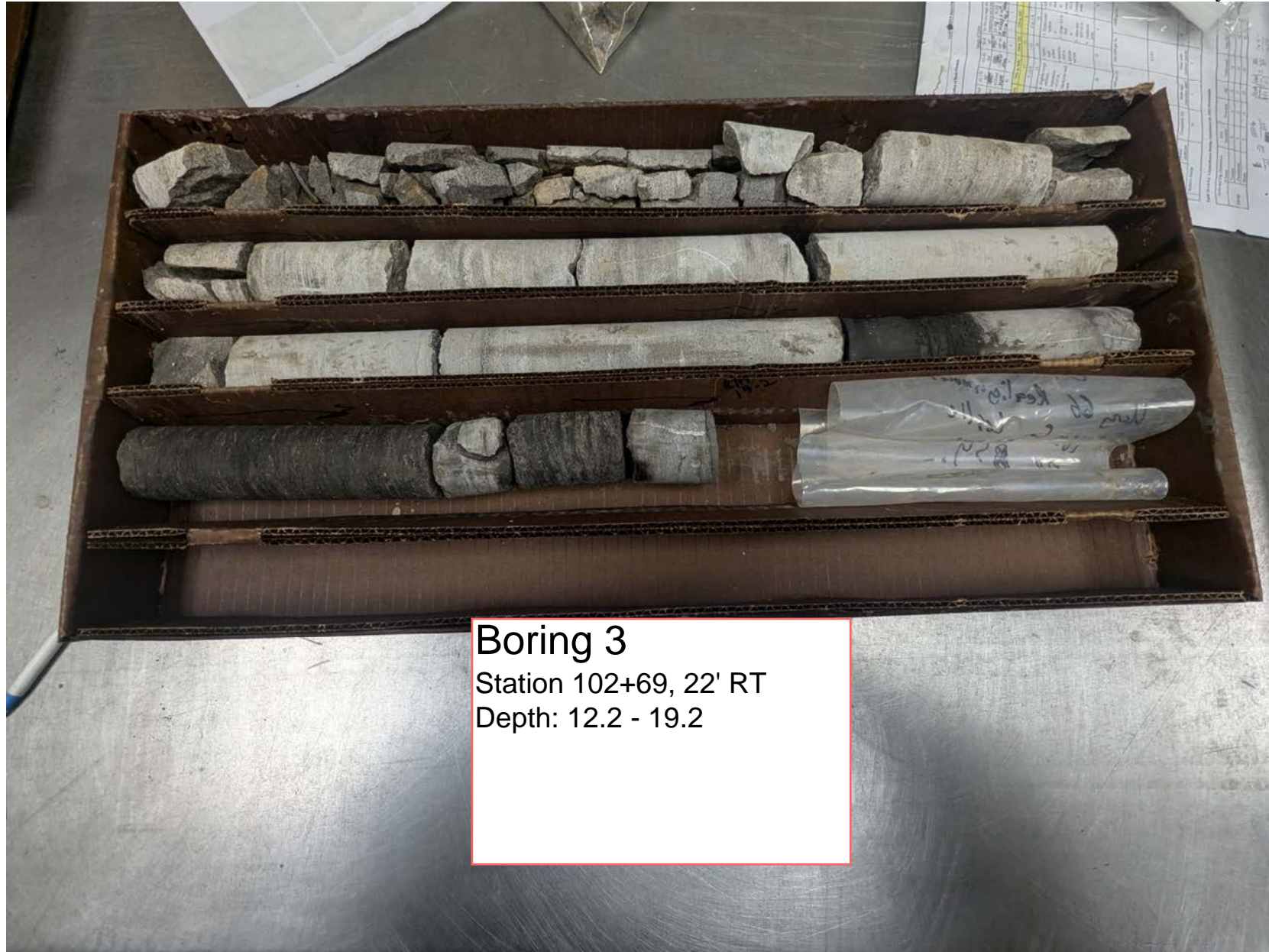
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 3
Station 102+69, 22' RT
Depth: 12.2 - 19.2



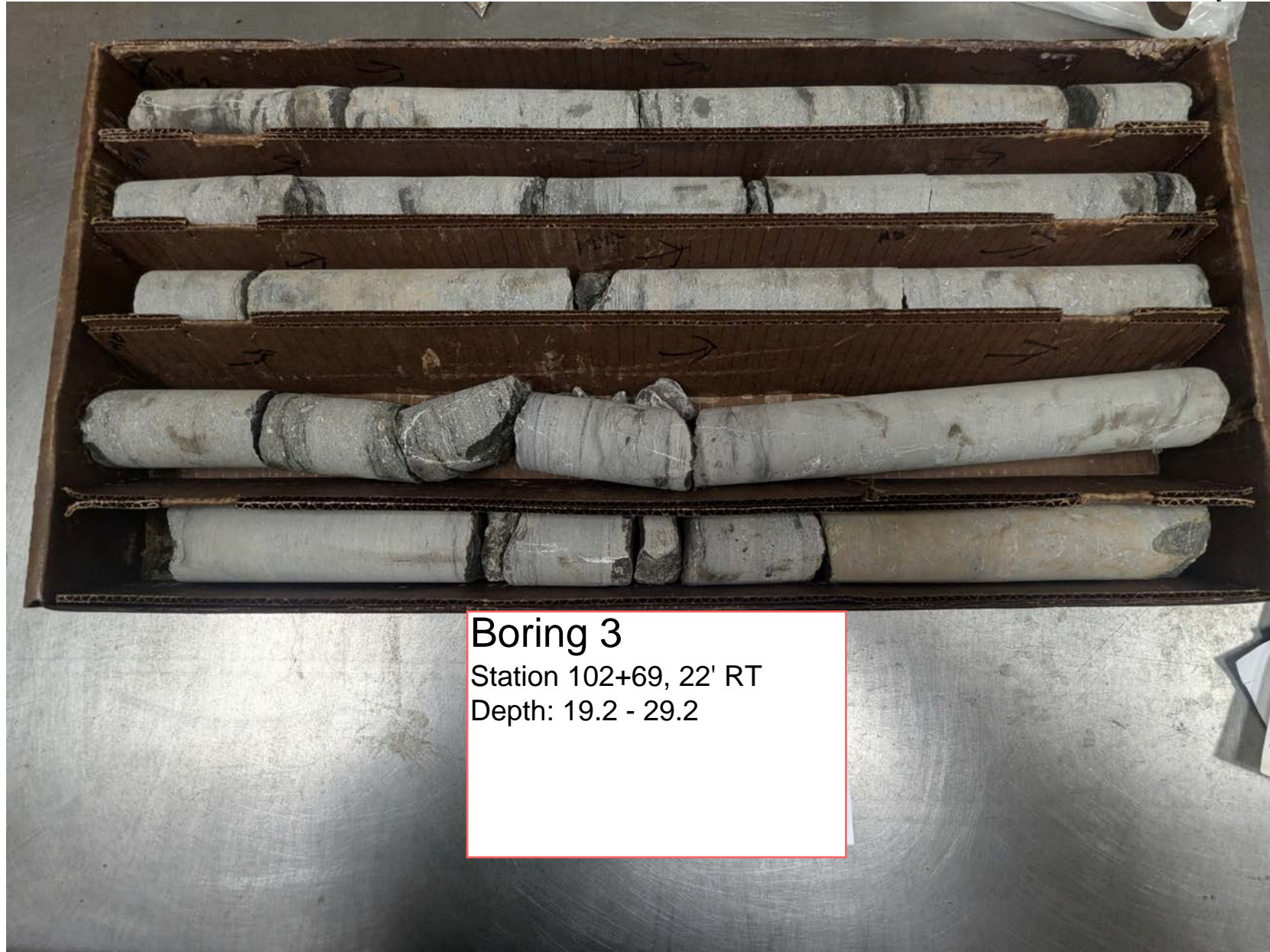
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





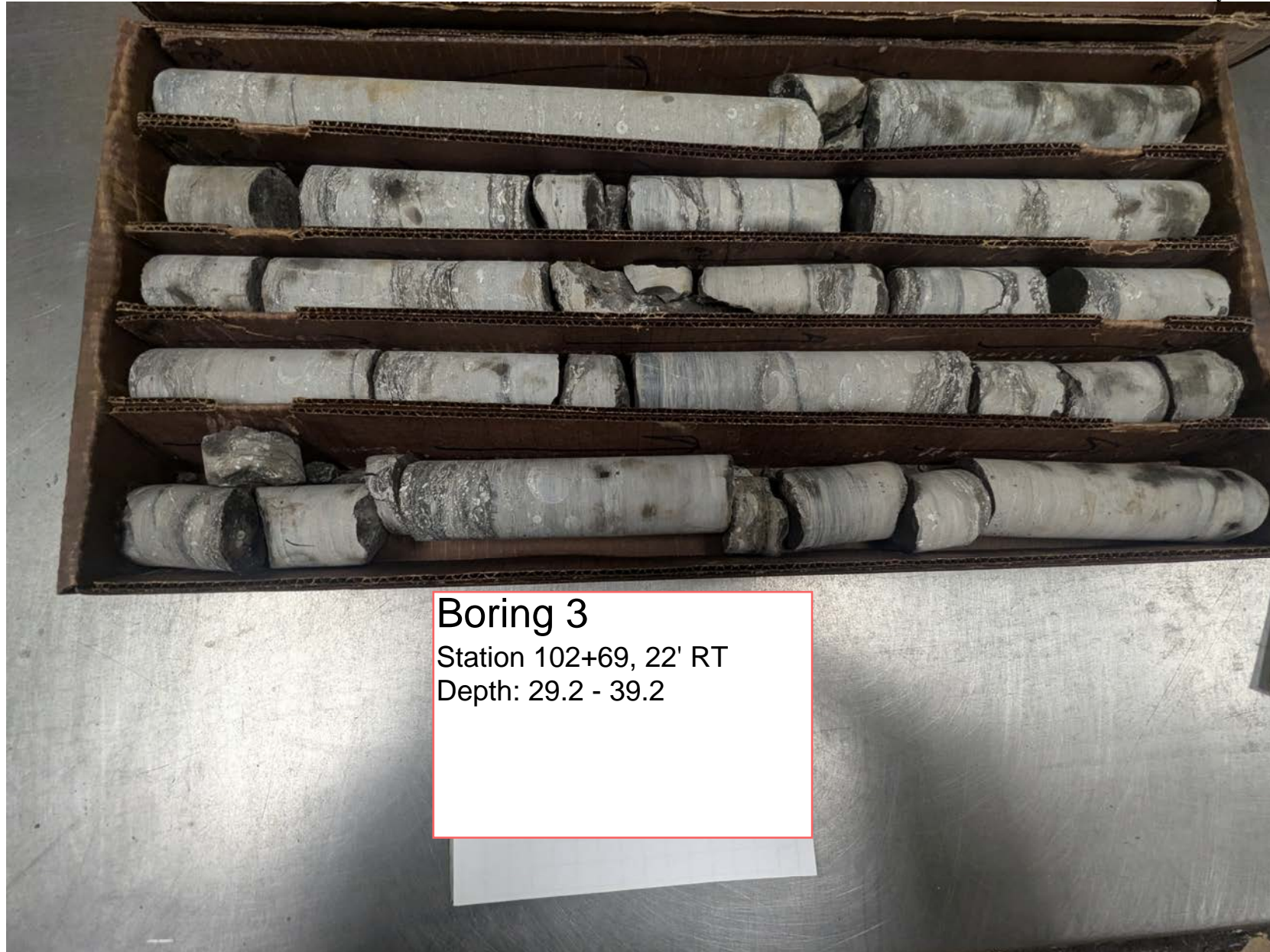
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 3
Station 102+69, 22' RT
Depth: 29.2 - 39.2



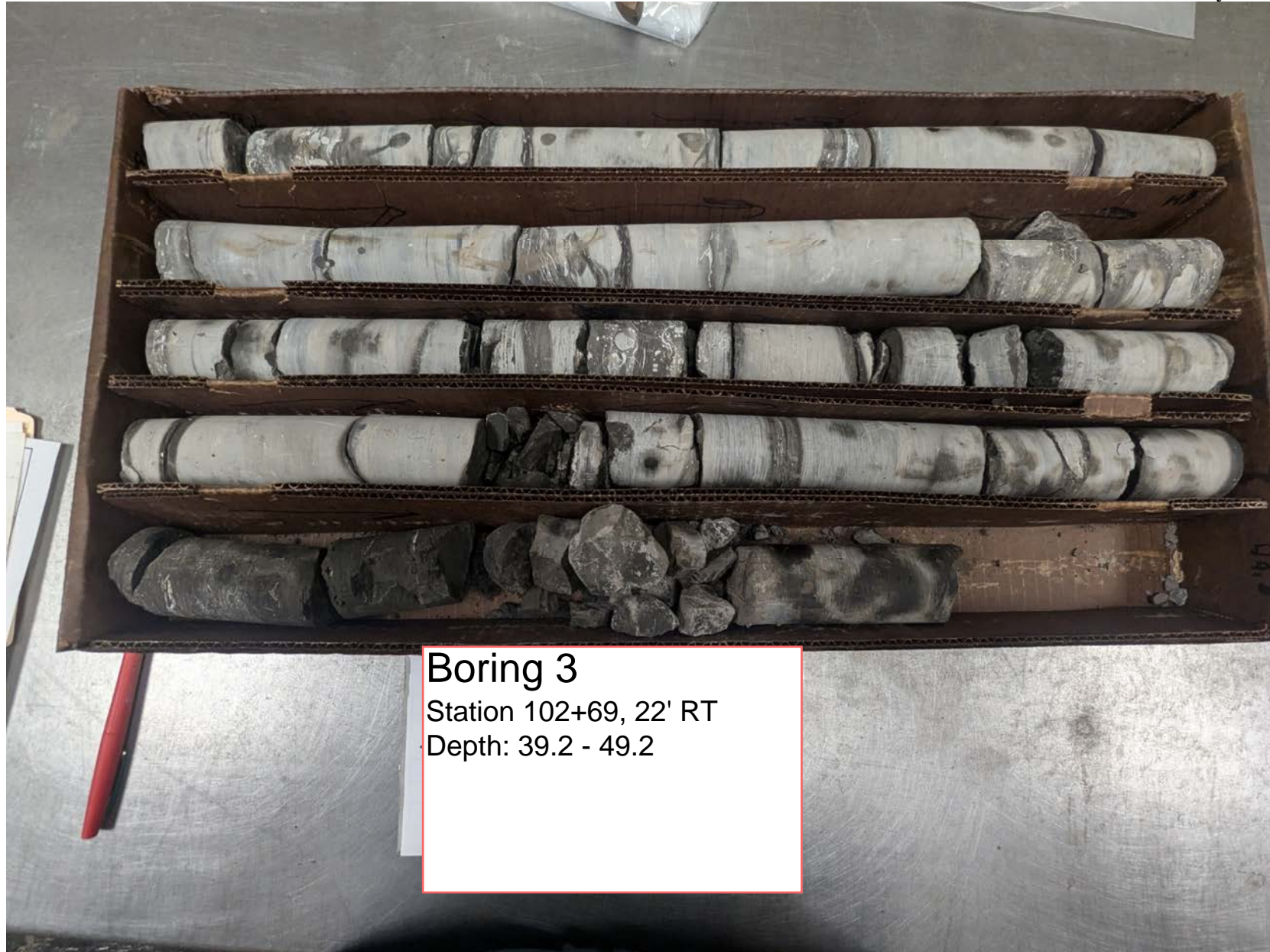
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 3

Station 102+69, 22' RT

Depth: 39.2 - 49.2



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 4
Station 102+72, 2' RT
Depth: 25.0 - 35.0

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
GEOTECHNICAL FIELD LOGS

DATE	TIME	DEPTH (ft)	DESCRIPTION	REMARKS
10/17/12	10:30	25.0	Shaly Clay w/ Grav	
10/17/12	10:35	25.5	Shaly Clay	
10/17/12	10:40	26.0	Shaly Clay	
10/17/12	10:45	26.5	Shaly Clay	
10/17/12	10:50	27.0	Shaly Clay	
10/17/12	10:55	27.5	Shaly Clay	
10/17/12	11:00	28.0	Shaly Clay	
10/17/12	11:05	28.5	Shaly Clay	
10/17/12	11:10	29.0	Shaly Clay	
10/17/12	11:15	29.5	Shaly Clay	
10/17/12	11:20	30.0	Shaly Clay	
10/17/12	11:25	30.5	Shaly Clay	
10/17/12	11:30	31.0	Shaly Clay	
10/17/12	11:35	31.5	Shaly Clay	
10/17/12	11:40	32.0	Shaly Clay	
10/17/12	11:45	32.5	Shaly Clay	
10/17/12	11:50	33.0	Shaly Clay	
10/17/12	11:55	33.5	Shaly Clay	
10/17/12	12:00	34.0	Shaly Clay	
10/17/12	12:05	34.5	Shaly Clay	
10/17/12	12:10	35.0	Shaly Clay	

One Uniaxial Compression

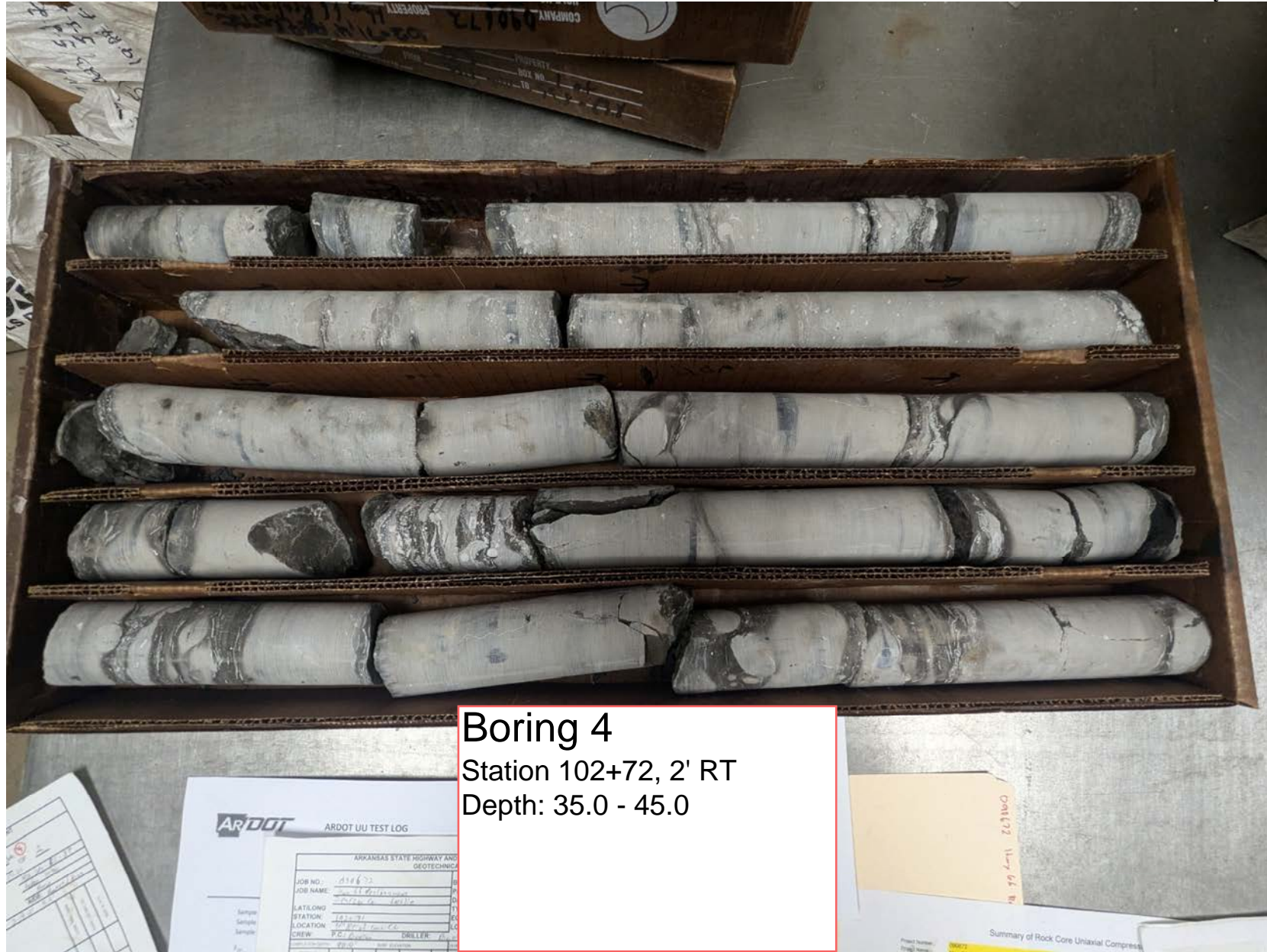
Depth (ft)	Load (lb)	Displacement (in)
25.0		
25.5		
26.0		
26.5		
27.0		
27.5		
28.0		
28.5		
29.0		
29.5		
30.0		
30.5		
31.0		
31.5		
32.0		
32.5		
33.0		
33.5		
34.0		
34.5		
35.0		



ROCK CORE PHOTOS

Job No.:090672
Site No.: 1

Made by: PWC
Checked by:PJT



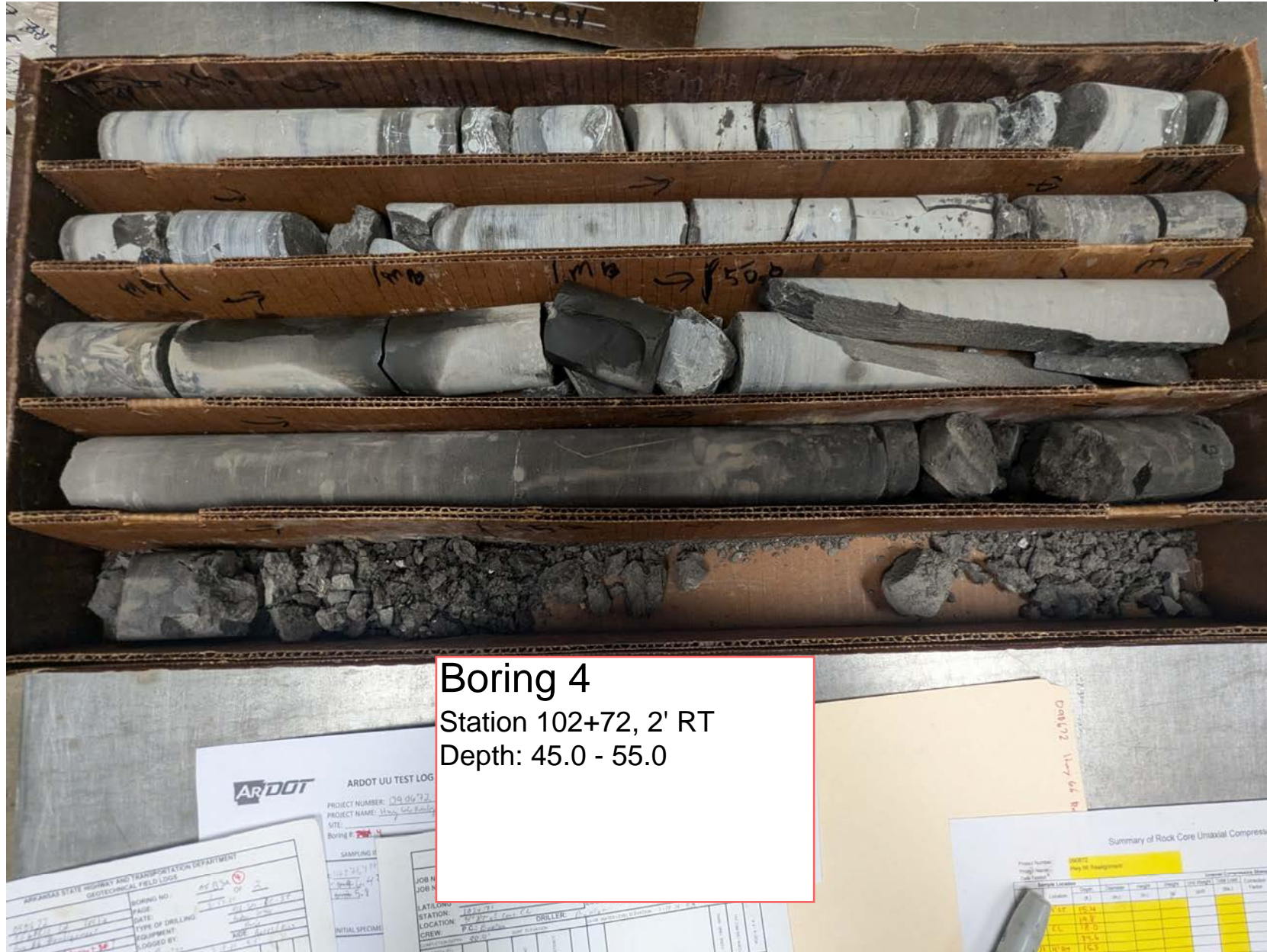
Boring 4
Station 102+72, 2' RT
Depth: 35.0 - 45.0



ROCK CORE PHOTOS

Job No.:090672
Site No.: 1

Made by: PWC
Checked by:PJT





ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 4
Station 102+72, 2' RT
Depth: 55.0 - 65.0

AR DOT ARDOT UU TEST LOG
PROJECT NUMBER: 090672
PROJECT NAME: Hwy 66 Bridge
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
GEOTECHNICAL FIELD LOGS
BORING NO.: #139A (4) 2
DATE: 11/2/11

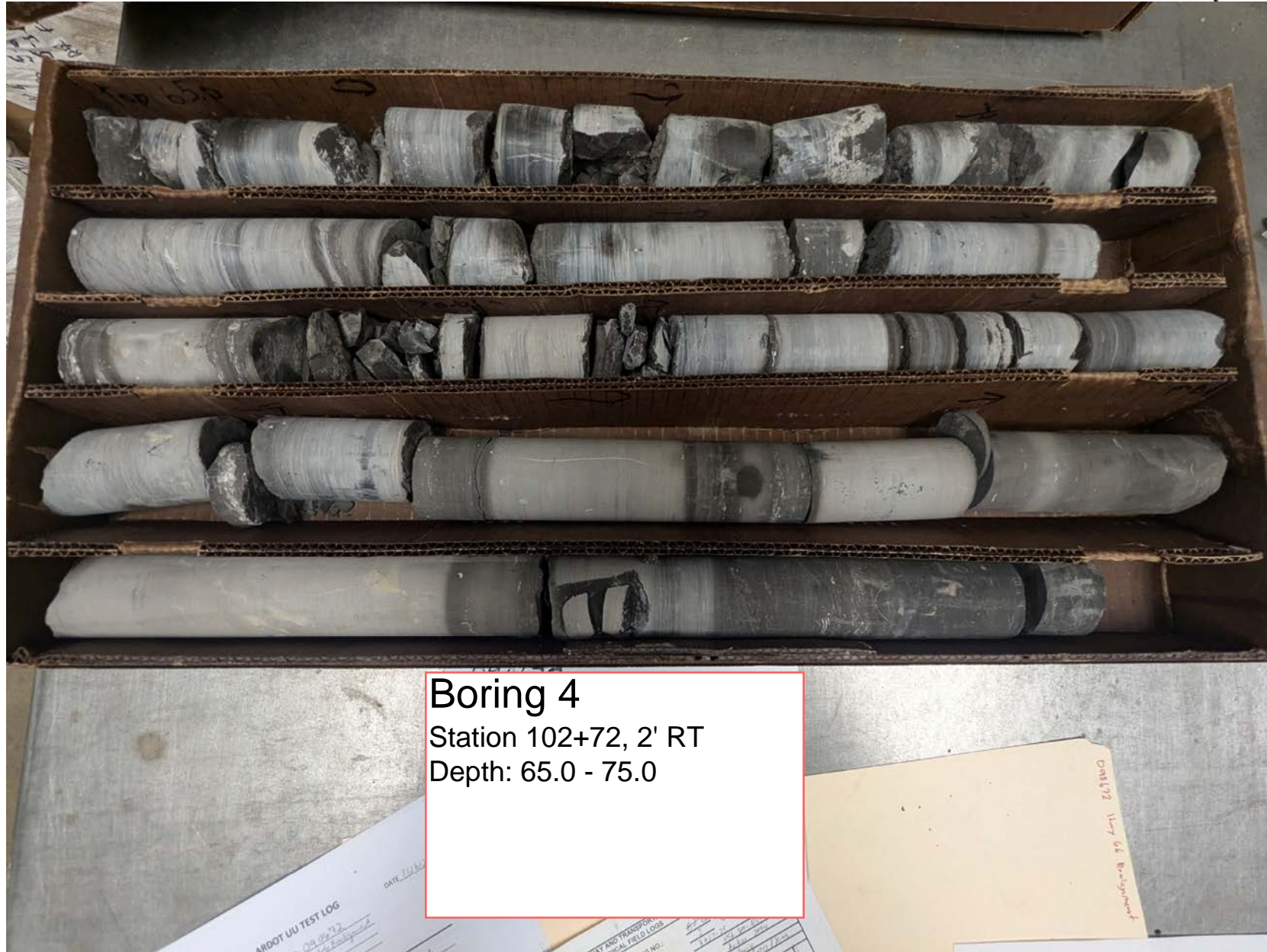
090672 Hwy 66 Bridge



ROCK CORE PHOTOS

Job No.:090672
Site No.: 1

Made by: PWC
Checked by:PJT



Boring 4
Station 102+72, 2' RT
Depth: 65.0 - 75.0



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





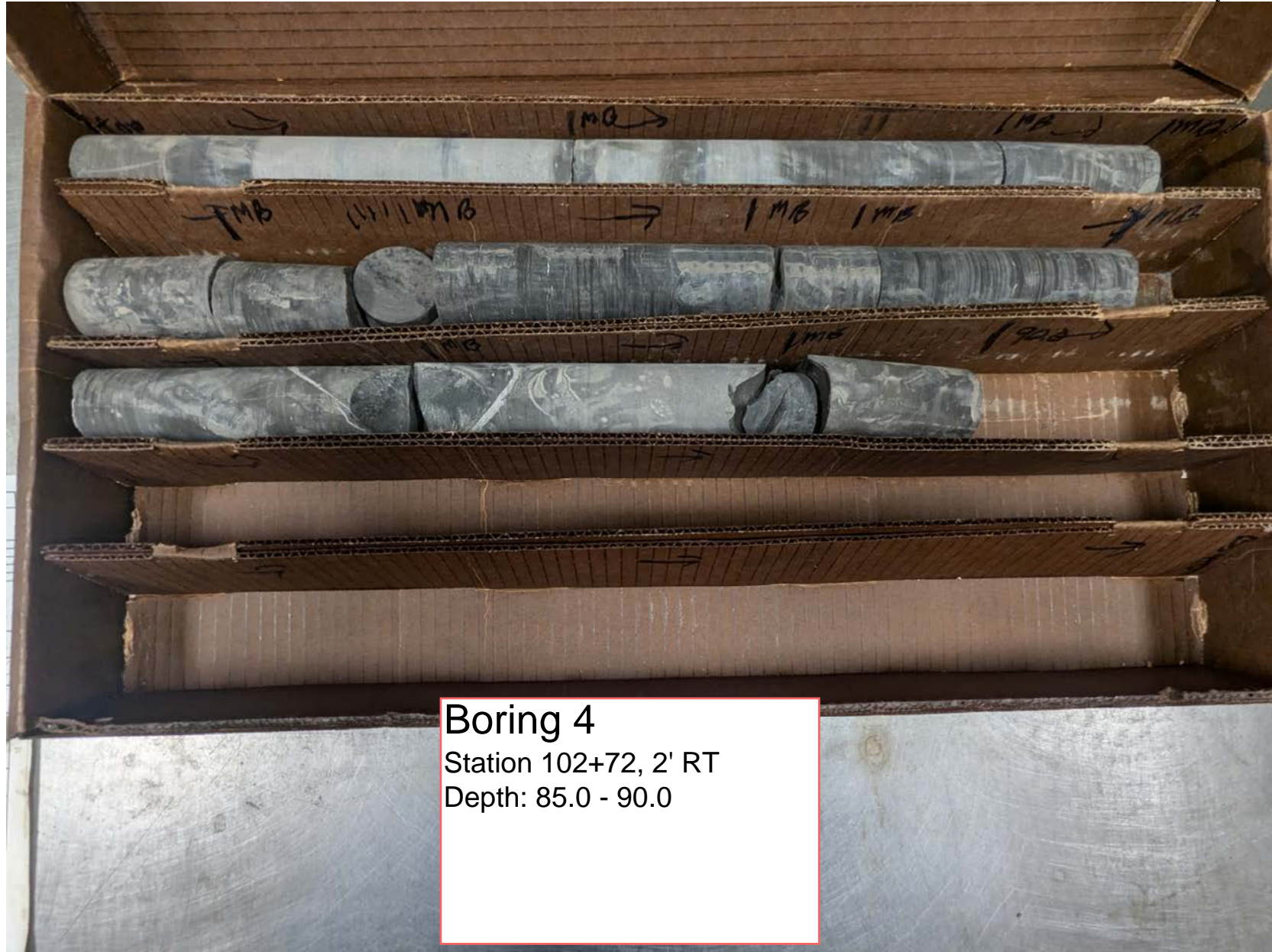
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





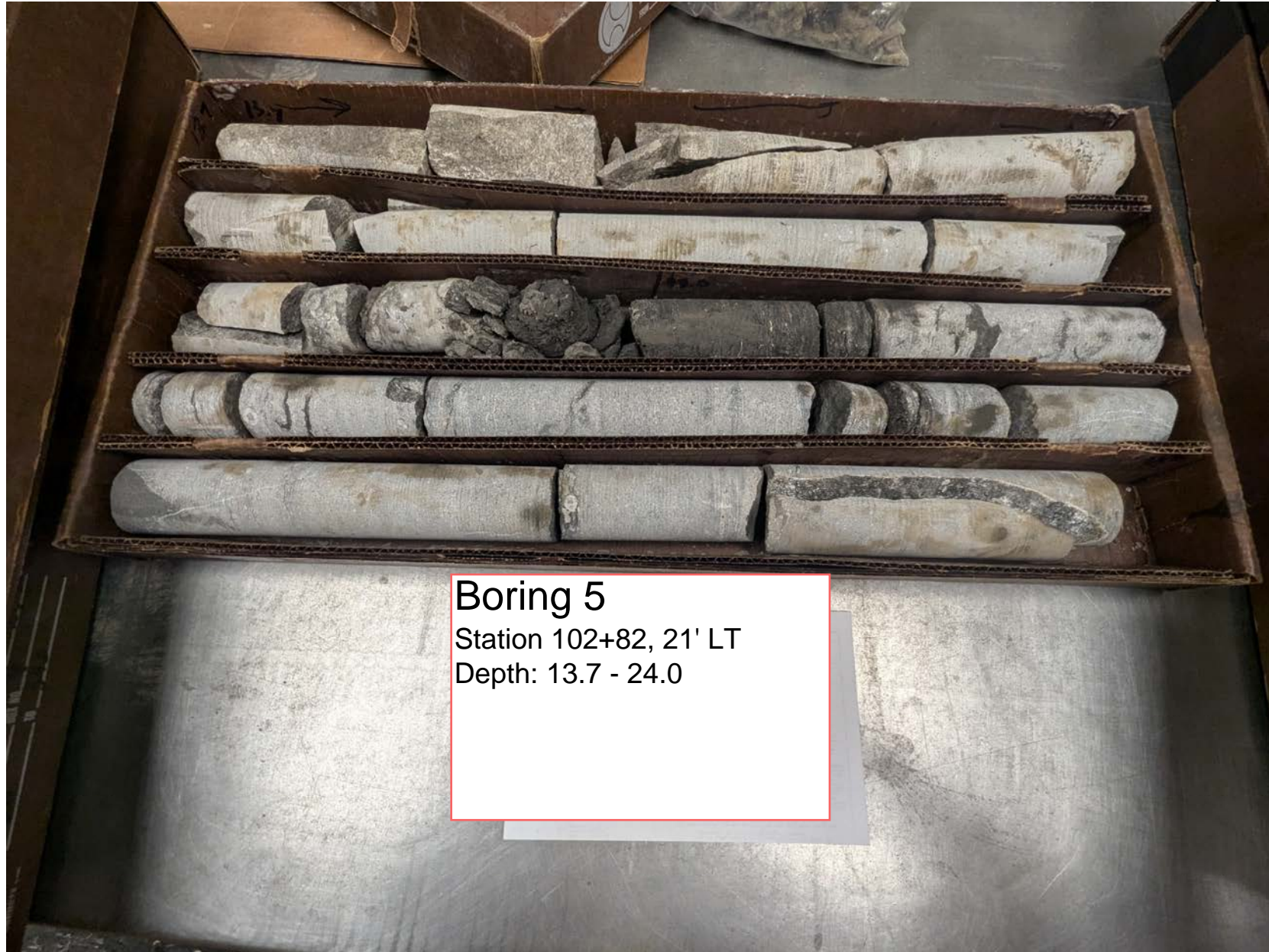
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 5

Station 102+82, 21' LT

Depth: 13.7 - 24.0



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 5
Station 102+82, 21' LT
Depth: 24.0 - 34.0



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 5

Station 102+82, 21' LT

Depth: 34.0 - 44.0



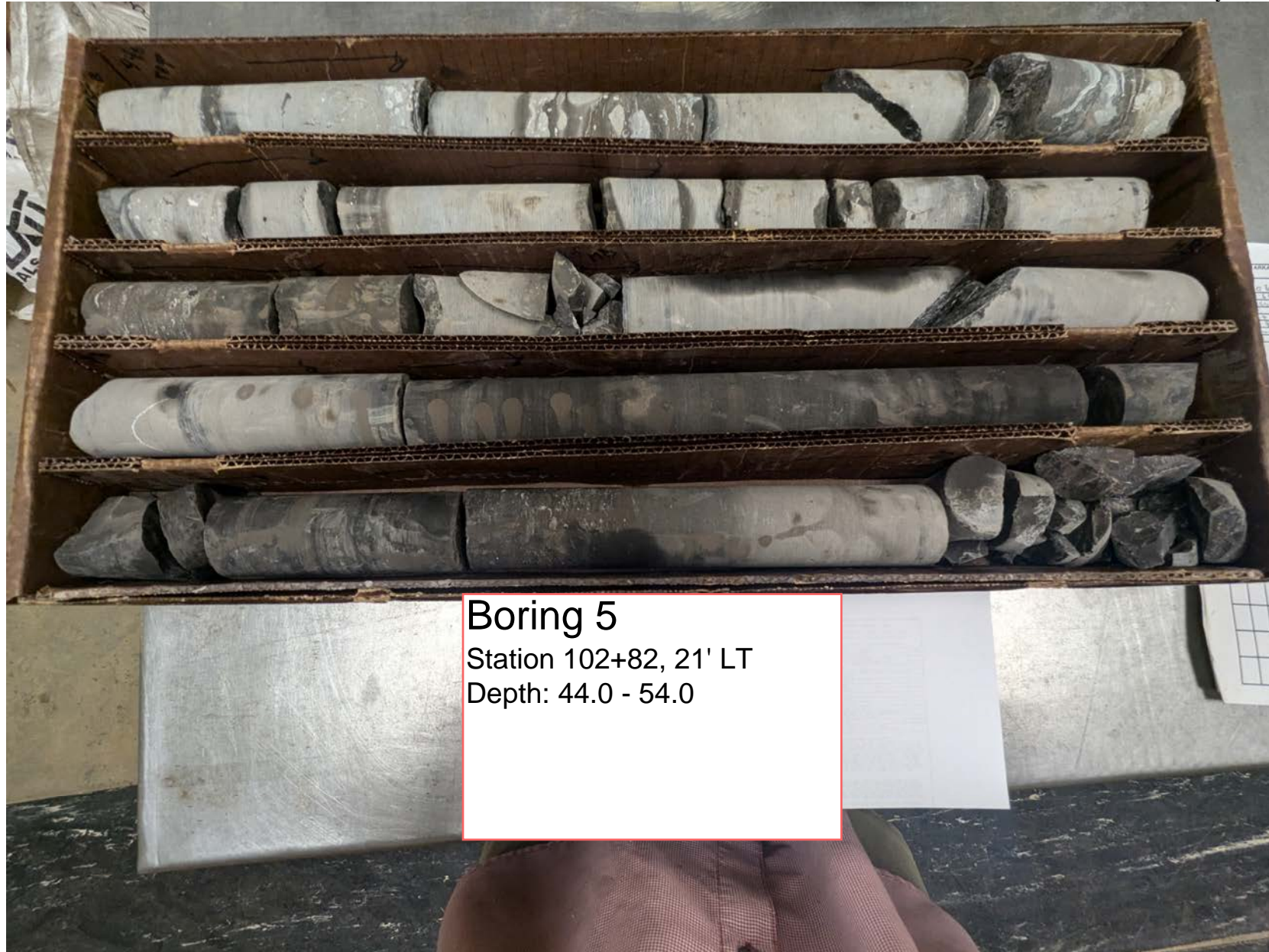
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 5
Station 102+82, 21' LT
Depth: 44.0 - 54.0



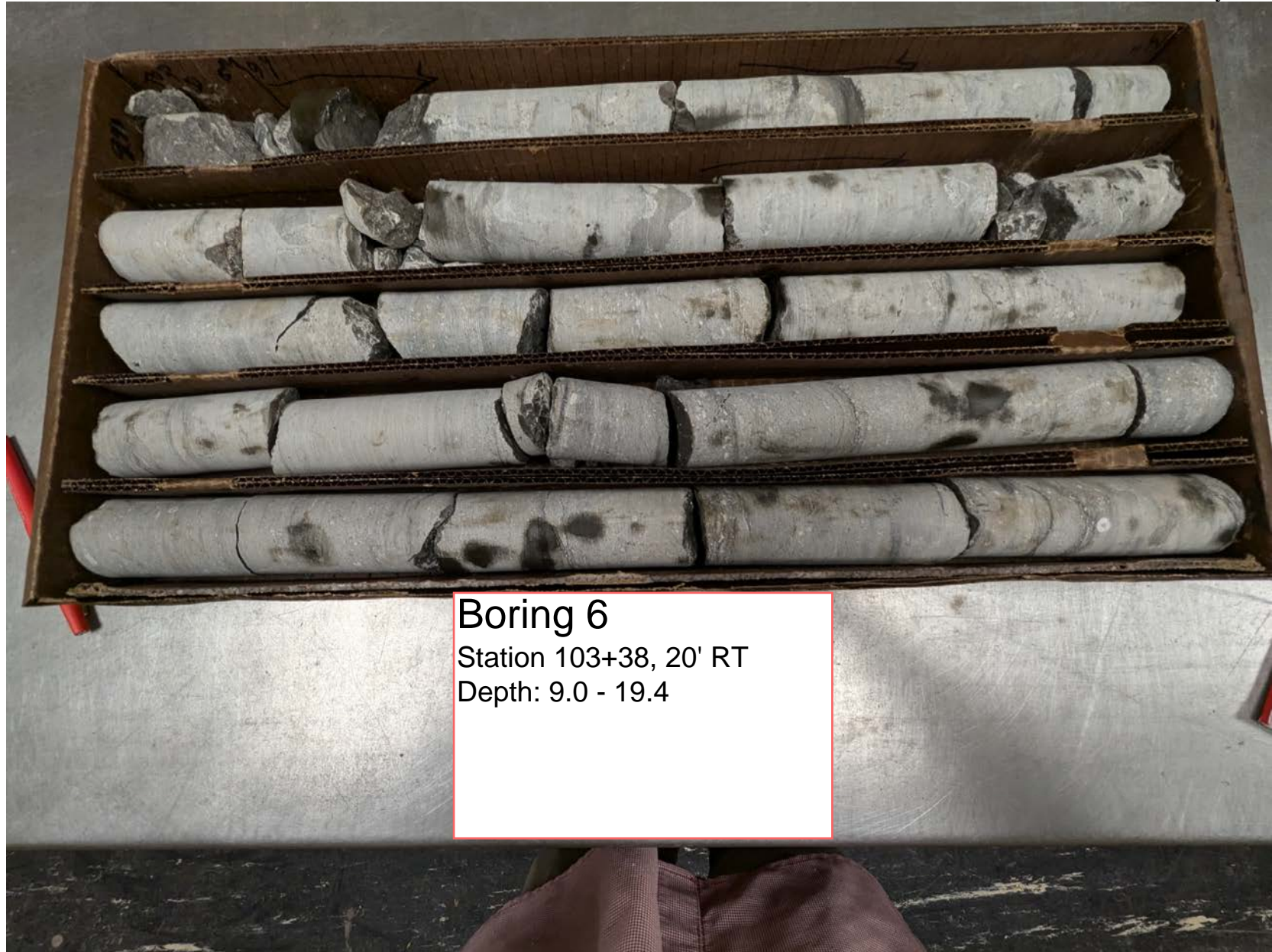
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 6
Station 103+38, 20' RT
Depth: 9.0 - 19.4



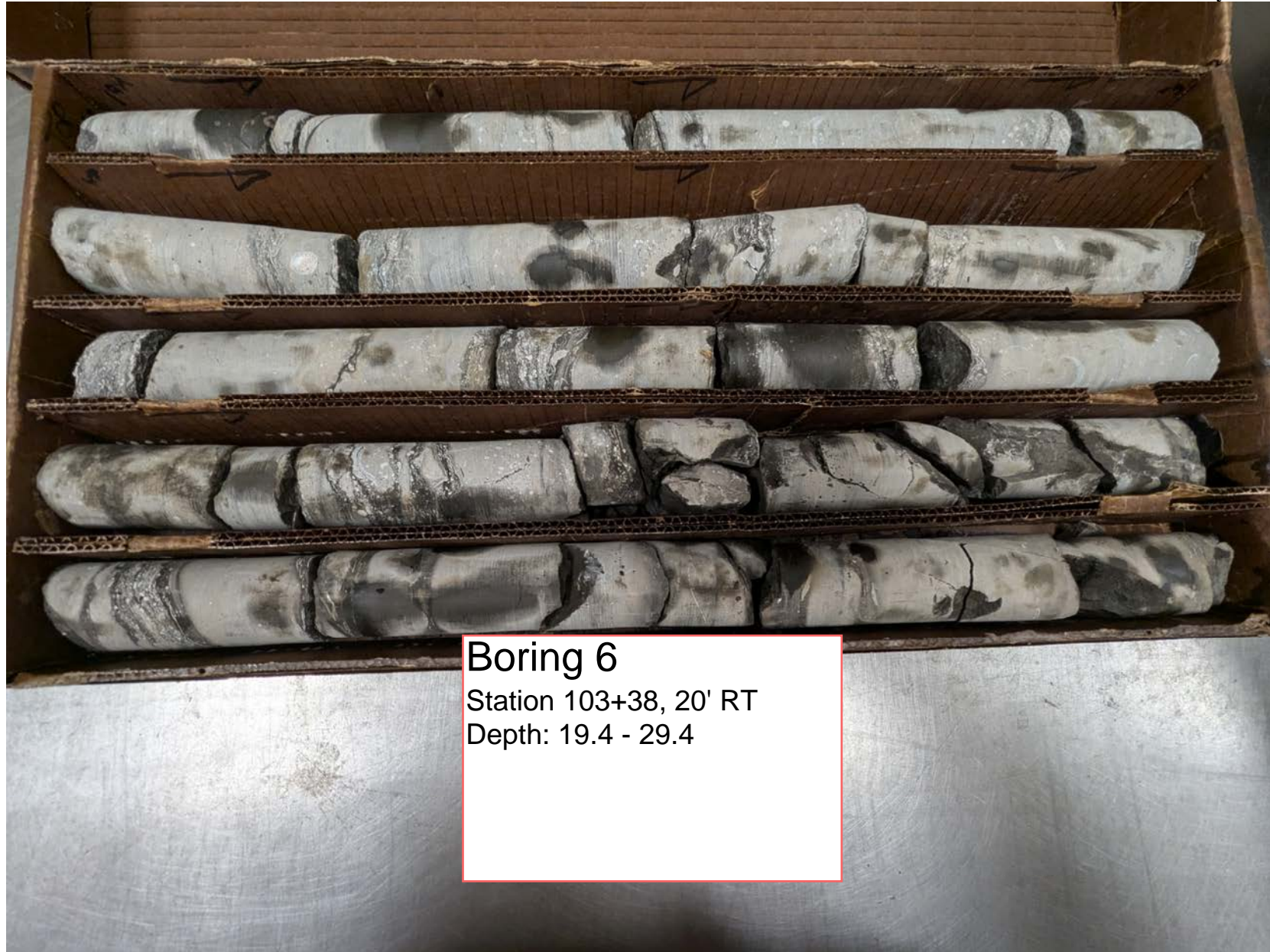
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 6

Station 103+38, 20' RT

Depth: 19.4 - 29.4



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 6

Station 103+38, 20' RT

Depth: 29.4 - 39.4



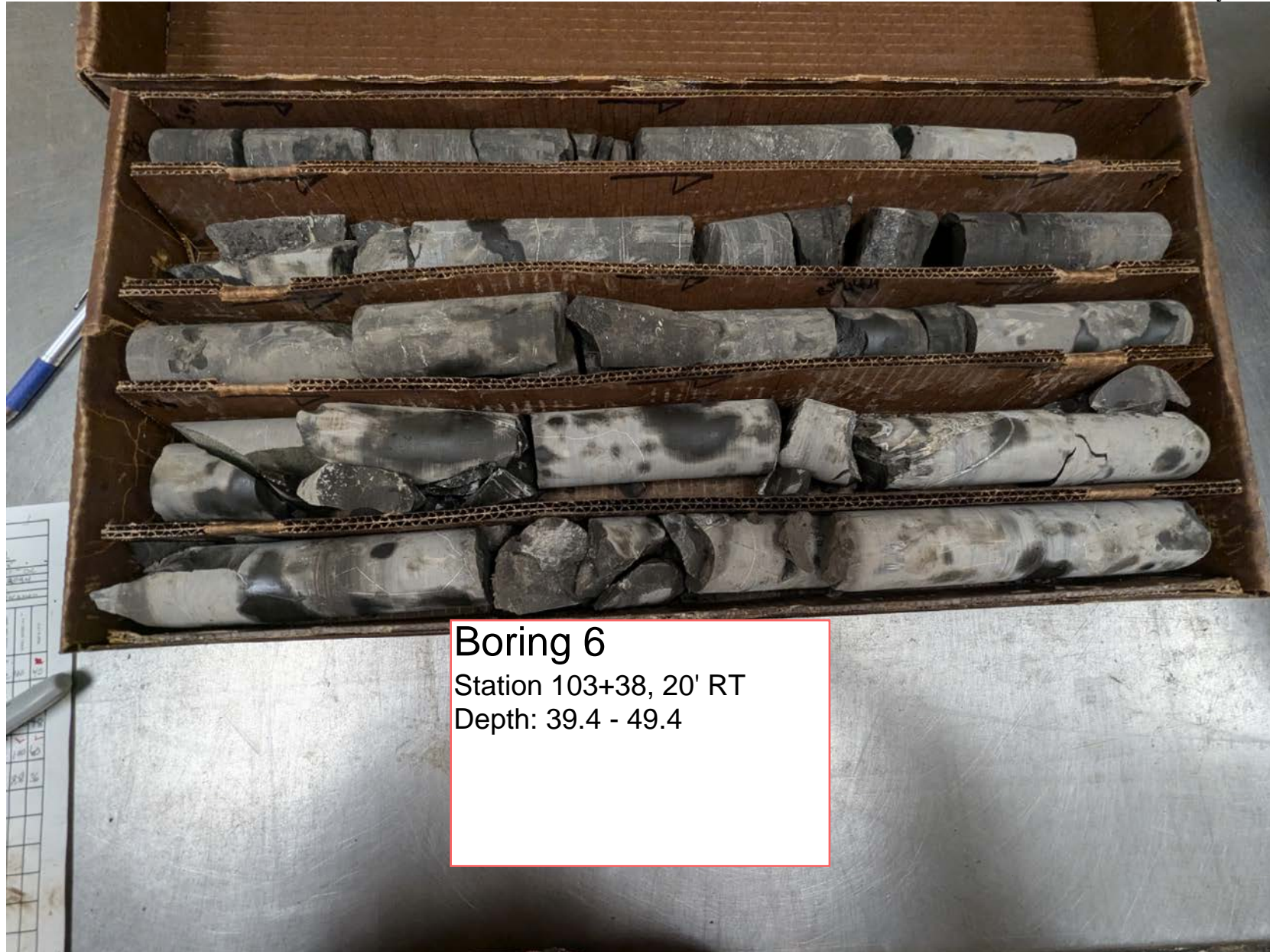
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 6

Station 103+38, 20' RT

Depth: 39.4 - 49.4



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 6

Station 103+38, 20' RT

Depth: 49.4 - 54.4



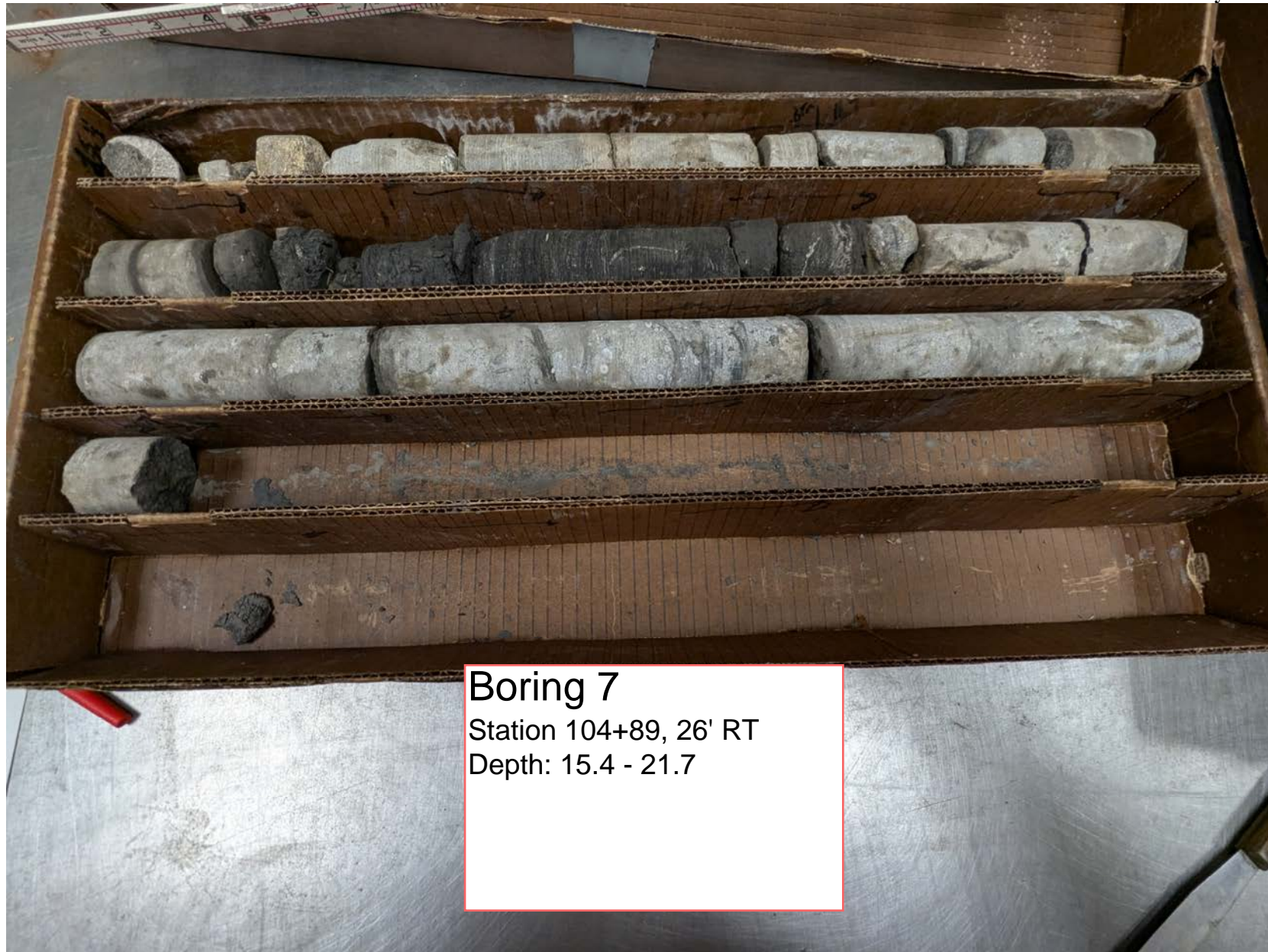
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





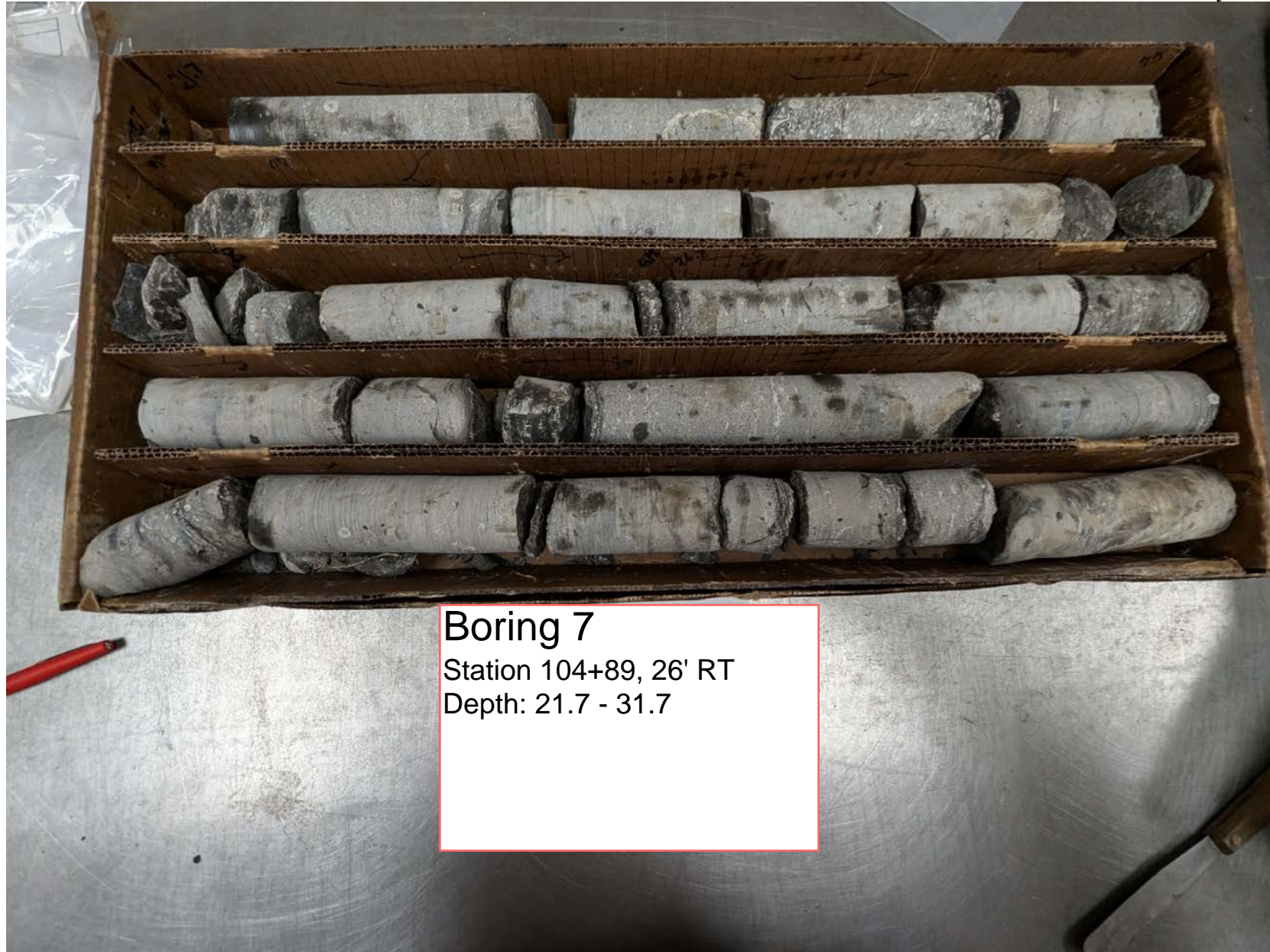
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 7
Station 104+89, 26' RT
Depth: 21.7 - 31.7



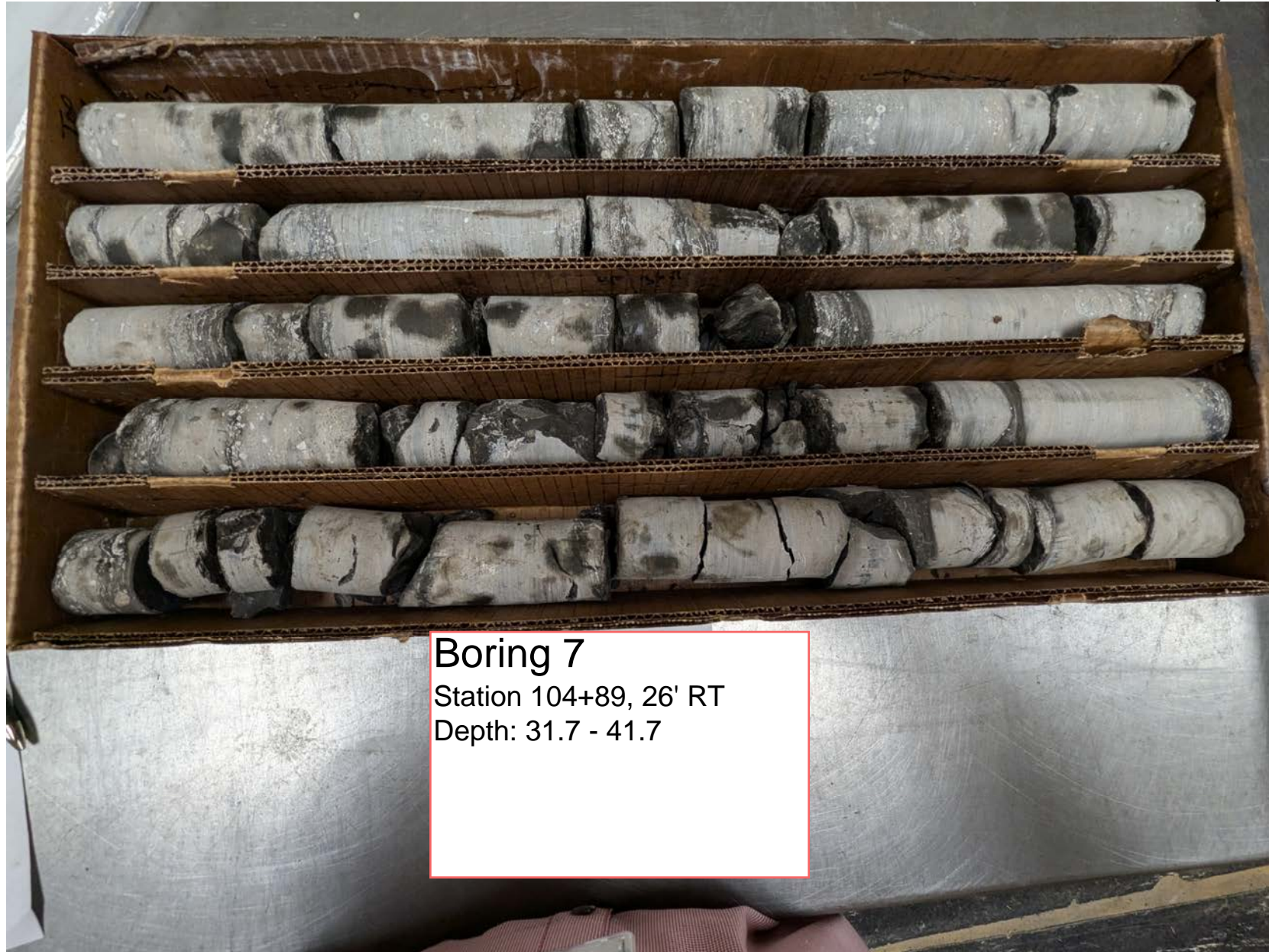
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 7

Station 104+89, 26' RT

Depth: 31.7 - 41.7



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 8
Station 105+75, 4' LT
Depth: 11.0 - 17.3

N TOP

N TOP



ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT





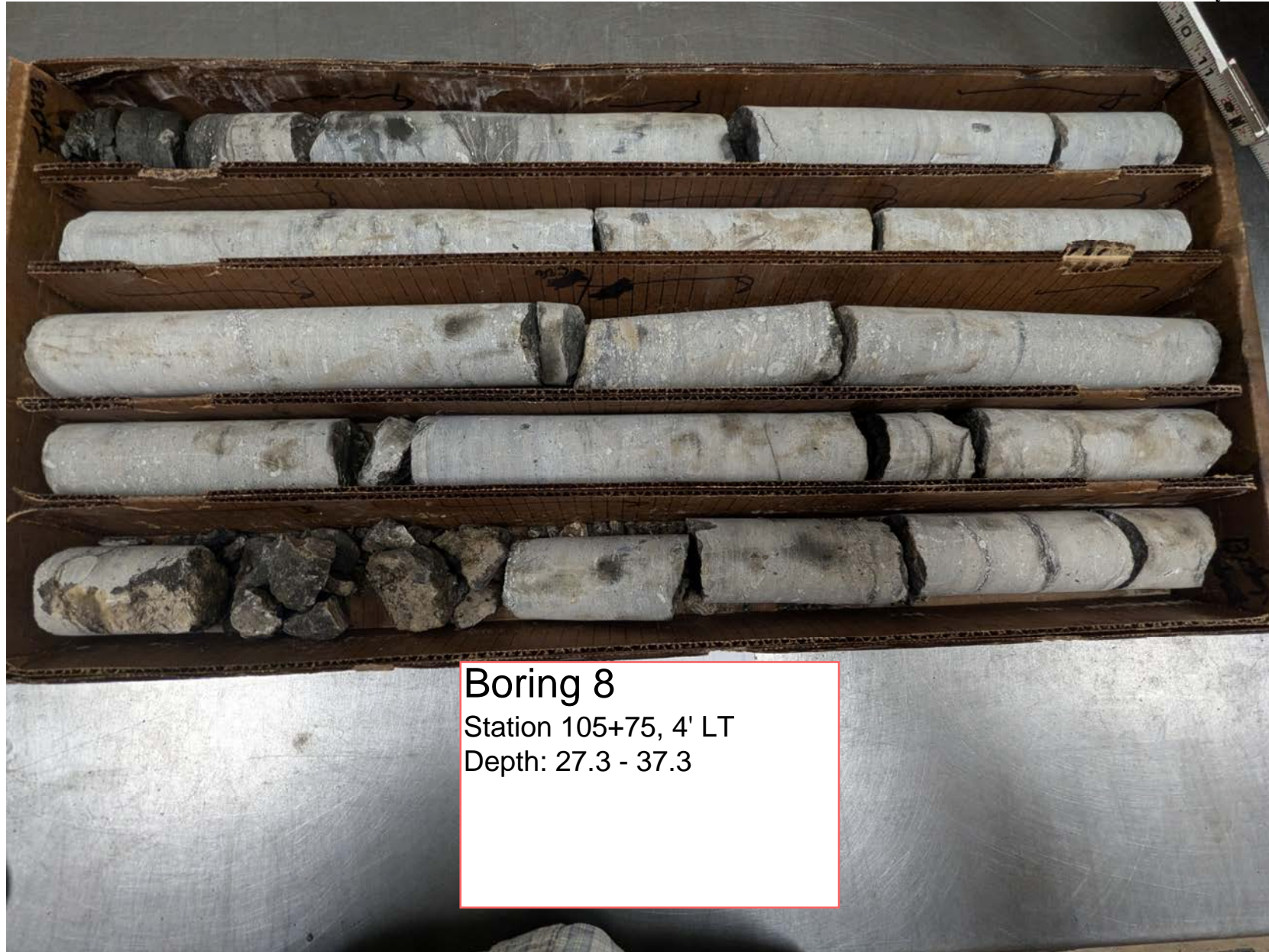
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



Boring 8
Station 105+75, 4' LT
Depth: 27.3 - 37.3



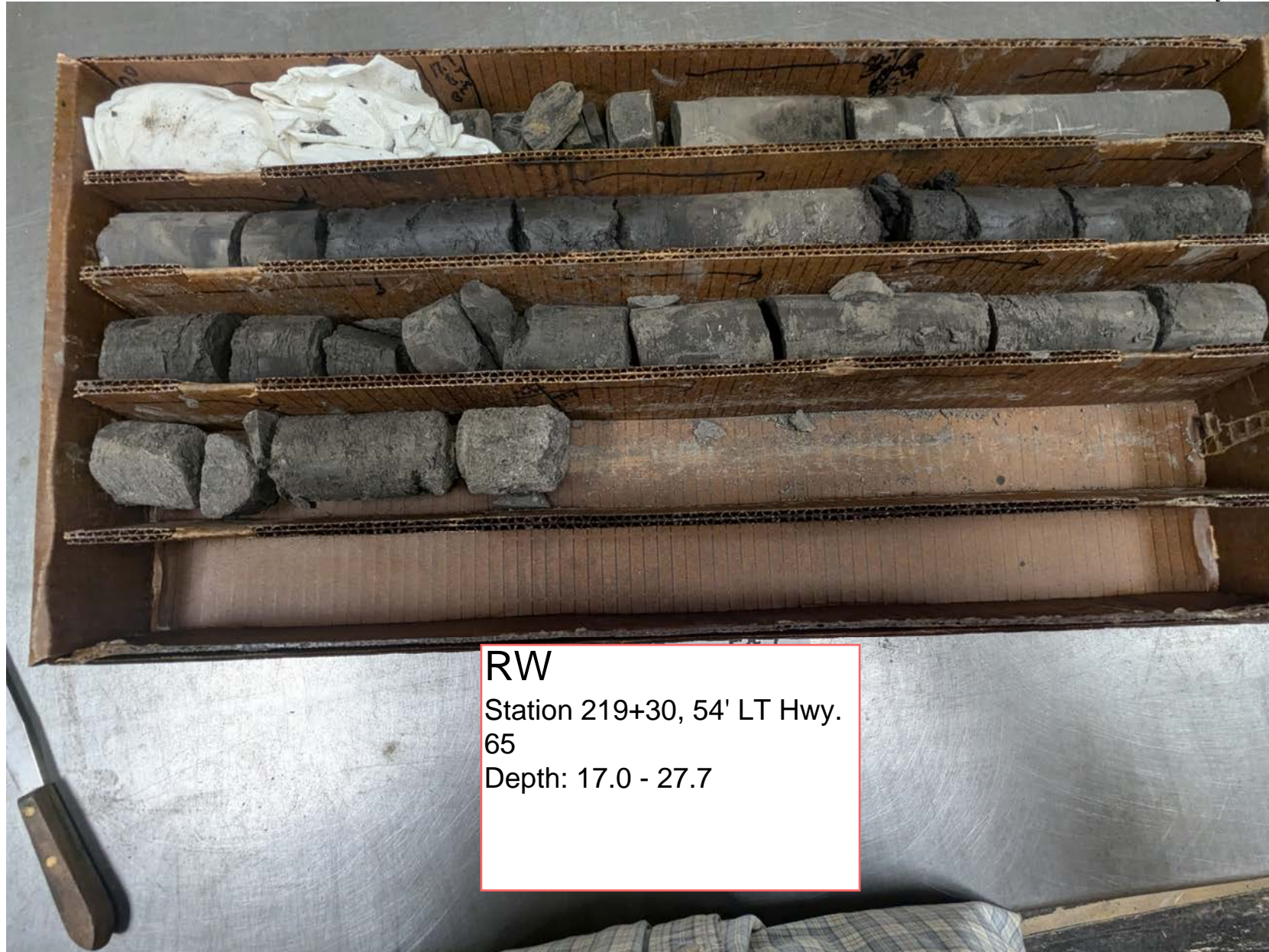
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



RW

Station 219+30, 54' LT Hwy.

65

Depth: 17.0 - 27.7



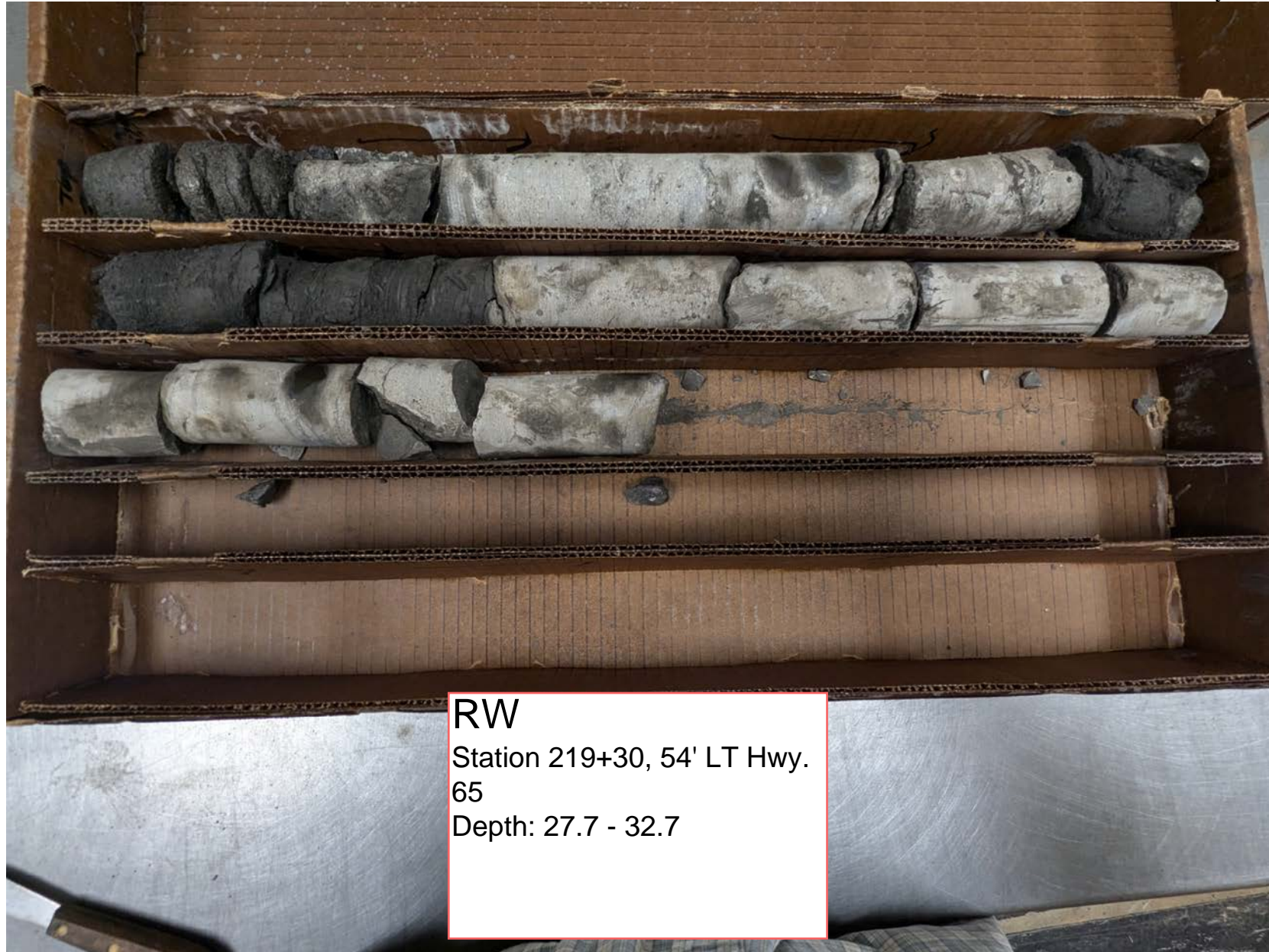
ROCK CORE PHOTOS

Job No.:090672

Made by: PWC

Site No.: 1

Checked by:PJT



RW
Station 219+30, 54' LT Hwy.
65
Depth: 27.7 - 32.7

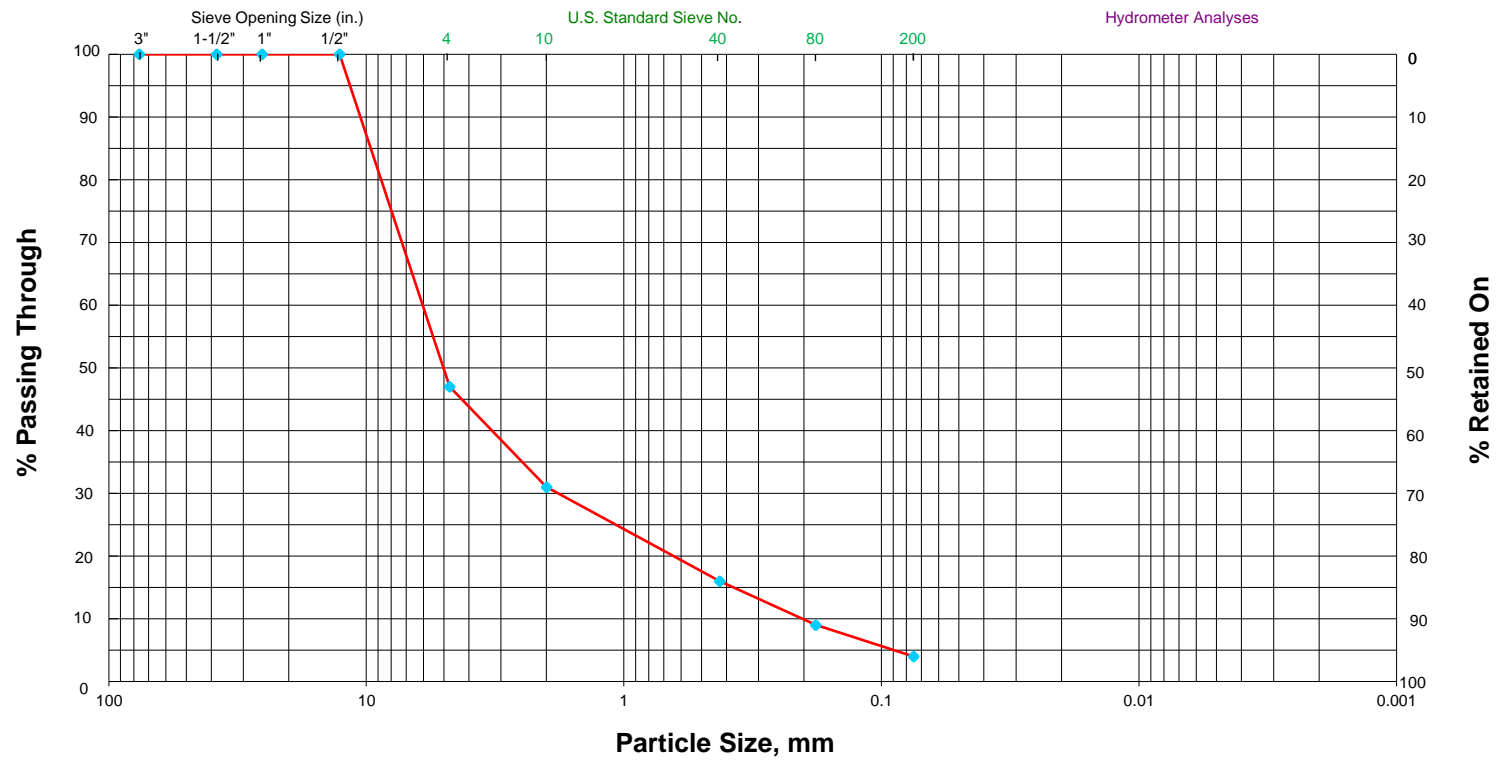
Summary of Rock Core Uniaxial Compression Test Results, Geological Strength Index (GSI) and Rock Mass Rating (RMR)

Project Number: 090672
 Project Name: Hwy 66 Realignment (Leslie)(S)
 Date Tested: 4/28/2025

GSI:	65
-------------	-----------

Sample Location		Uniaxial Compressive Strength								RMR							Notes	
Station	Location	Depth (ft.)	Diameter (in.)	Height (in.)	Weight (g)	Unit Weight (pcf)	Total Load (lbs.)	Correction Factor	Stress (psi)	Rock Type	Uniaxial Compressive Strength Rating	RQD Rating	Spacing of Joints	Condition of Joints	Groundwater Condition	Sum		Class Number
102+09	21' RT	10.4	1.76	3.58	382.68	167	35,400	1.00	14,551	Limestone	7	20	20	20	7	67	II	GOOD ROCK
102+46	1' RT	18.0	1.76	3.54	365.00	161	29,680	1.00	12,200	Limestone	7	20	20	20	7	67	II	GOOD ROCK
102+46	1' RT	24.6	1.76	3.47	375.00	169	31,410	1.00	12,911	Limestone w/ SH	7	20	20	12	7	59	III	FAIR ROCK
102+51	18' LT	11.8	1.76	3.52	334.00	149	14,420	1.00	5,927	Limestone	4	20	20	25	7	72	II	GOOD ROCK Healed Fractures
102+69	22' RT	15.3	1.76	3.53	366.00	162	24,330	1.00	10,001	Limestone	7	13	20	20	7	60	III	FAIR ROCK
102+72	2' RT	15.5	1.76	3.52	356.00	158	25,150	1.00	10,338	Limestone	7	20	20	20	7	67	II	GOOD ROCK
102+72	2' RT	18.4	1.76	3.49	370.00	166	22,230	1.00	9,137	Limestone	7	20	20	20	7	67	II	GOOD ROCK
102+82	21' LT	15.4	1.76	3.48	355.00	160	24,520	1.00	10,079	Limestone	7	8	20	20	7	55	III	FAIR ROCK
102+82	21' LT	19.8	1.76	2.54	274.00	169	35,450	0.95	13,909	Limestone w/ SH	7	17	20	20	7	64	II	GOOD ROCK
103+38	20' RT	9.7	1.76	3.50	373.00	167	17,910	1.00	7,362	Limestone	4	17	20	20	7	64	II	GOOD ROCK
104+89	26' RT	17.3	1.74	3.54	329.00	149	940	1.00	395	Calcareous Shale	0	13	25	25	7	70	II	GOOD ROCK
104+89	26' RT	20.0	1.76	3.47	372.00	168	11,910	1.00	4,895	Limestone w/ SH	4	13	25	20	7	65	II	GOOD ROCK
104+89	26' RT	21.7	1.76	3.50	378.00	169	30,220	1.00	12,422	Limestone	7	17	25	25	7	74	II	GOOD ROCK
105+75	4' LT	11.8	1.76	3.51	347.00	155	8,220	1.00	3,379	Limestone	2	13	20	20	7	60	III	FAIR ROCK
219+30	54' LT	30.6	1.76	3.50	376.00	168	36,700	1.00	15,085	Limestone	12	13	20	20	7	60	III	FAIR ROCK Soft Shale Layers above and below
Average, μ :						163			9,506									
Standard Deviation						7			4342									
Average - Standard Deviation/2, $\mu-s/2$:						159			7335									

*. RQD Rating = (20, 17, 13, 8, and 3) when RQD = (>90, 75% to 90%, 50% to 75%, 25% to 50%, and <50%)



Particle Size Distribution Curve for D₅₀ Sample
Station 103+50, 47' Left of CL



Attachment C

SITE PICTURES

Job No.: 090672

Made by: PWC

Site No.: 1

Checked by: PJT



Proposed bridge location looking upstream towards existing bridge (February 2025)



Looking east at rock outcrop on west bank, downstream from proposed bridge location (February 2025)

SITE PICTURES

**Job No.: 090672
Site No.: 1**

**Made by: PWC
Checked by: PJT**



Looking west from east side of proposed bridge end location (February 2025)

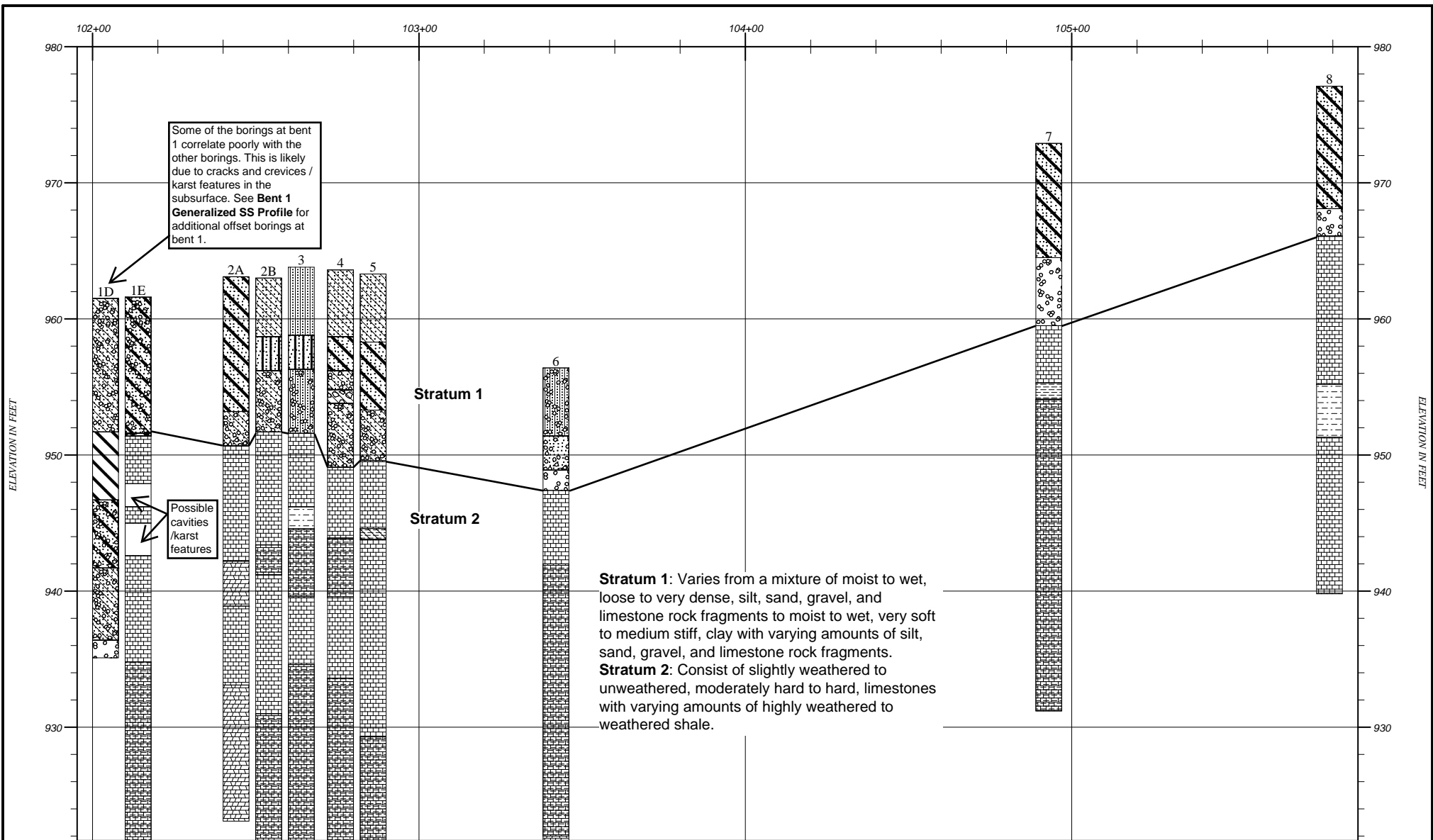


Looking north from proposed location of west bridge end with boring locations marked (February 2025)

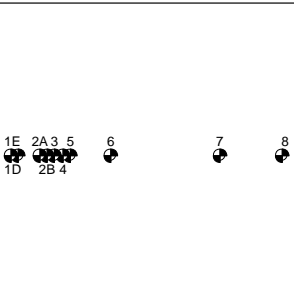


Interbedded limestone and shale outcrop located on the west side of hwy 65 near proposed project location (February 2025)

Attachment D



Plan View



Strata symbols

- clayey sand and gravel
- clay
- sandy clay with gravel
- gravel/rock fragments
- shale/siltstone
- sand, gravel, cobbles and boulders
- limestone/dolomite
- cavity/no recovery
- limestone/dolomite with shale seams
- sandy clay/clay with sand
- limestone/dolomite interbedded with shale
- sandy silt
- clayey gravel
- silty sand with gravel
- sand and gravel

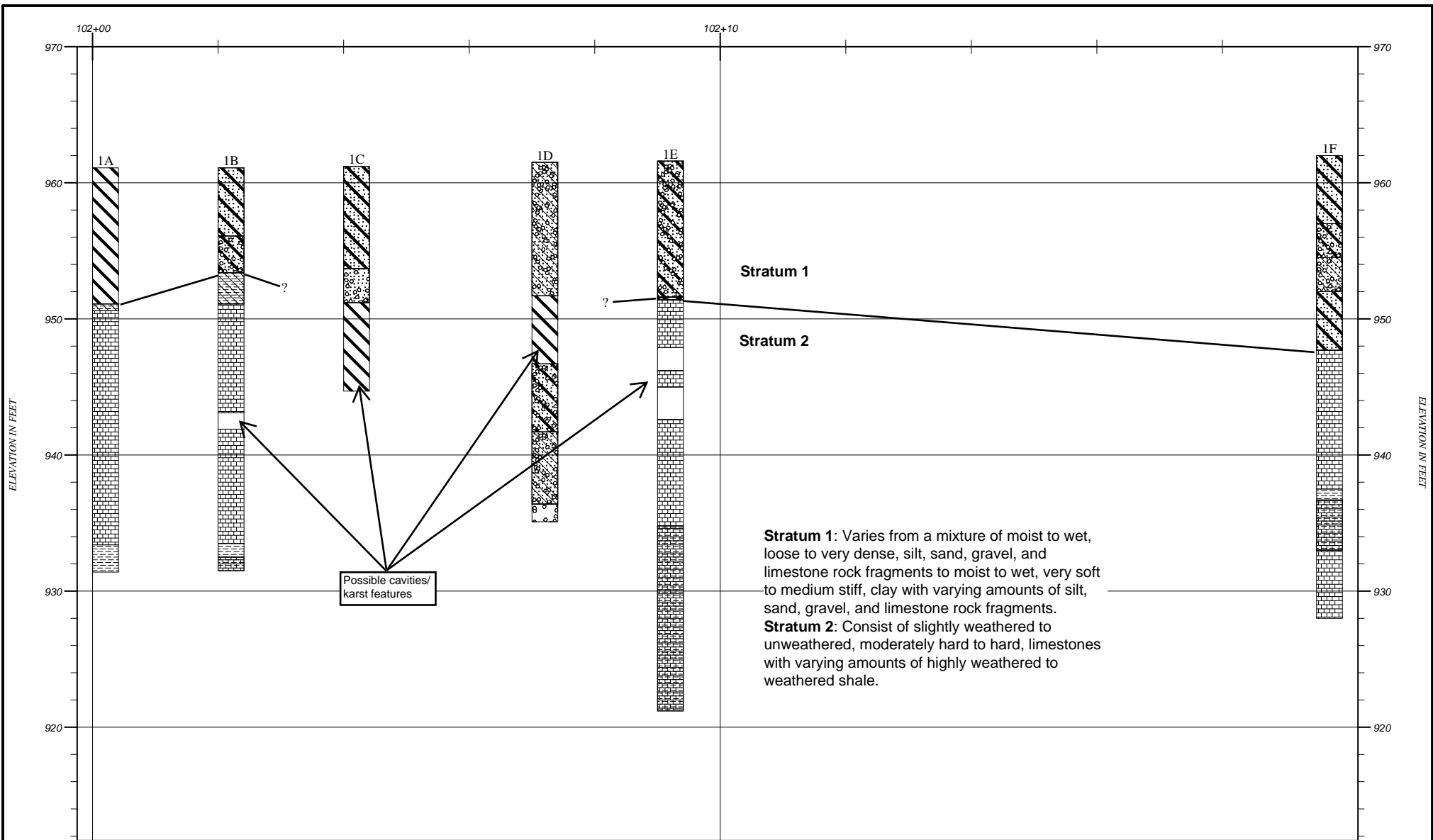
GENERALIZED SUBSURFACE PROFILE

SCALE: Not to scale	DRAWN BY/APPROVED BY PWC /PJT	DATE DRAWN 7/9/2025
---------------------	----------------------------------	------------------------

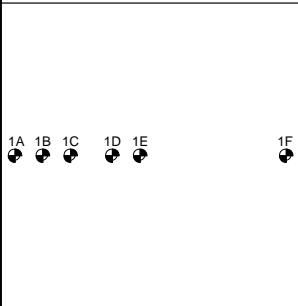
Highway 66 Realignment (Leslie) (S)

PROJECT NO. 090672
Searcy County

FIGURE 1 of 2



Plan View



Strata symbols

- clay
- shale with clay seams/highly weathered shale
- limestone/dolomite
- shale/siltstone
- sandy clay/clay with sand
- sandy clay with gravel
- cavity/no recovery
- limestone/dolomite with shale seams
- sand and gravel
- clayey sand and gravel
- gravel / rock fragments
- sand, gravel, cobbles and boulders

BENT 1 GENERALIZED SUBSURFACE PROFILE		
SCALE: Not to scale	DRAWN BY/APPROVED BY PWC /PJT	DATE DRAWN 7/9/2025
Highway 66 Realignment (Leslie) (S)		
PROJECT NO. 090672 Searcy County		FIGURE 2 of 2

Attachment E

Title: 090672 - Hwy. 66 Realignment (Leslie)(S)

Latitude: 35.827533

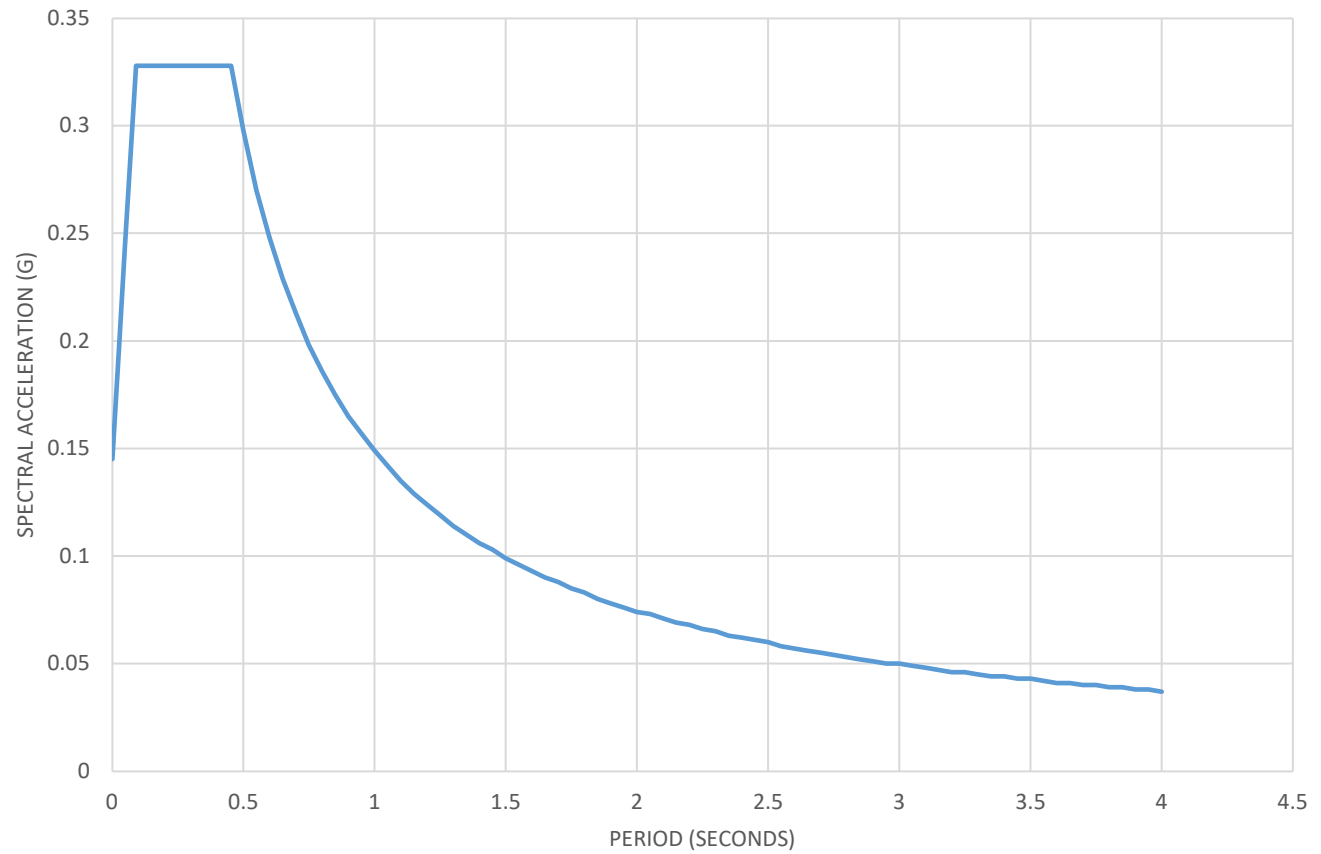
Longitude: -92.560669

Site Class: C

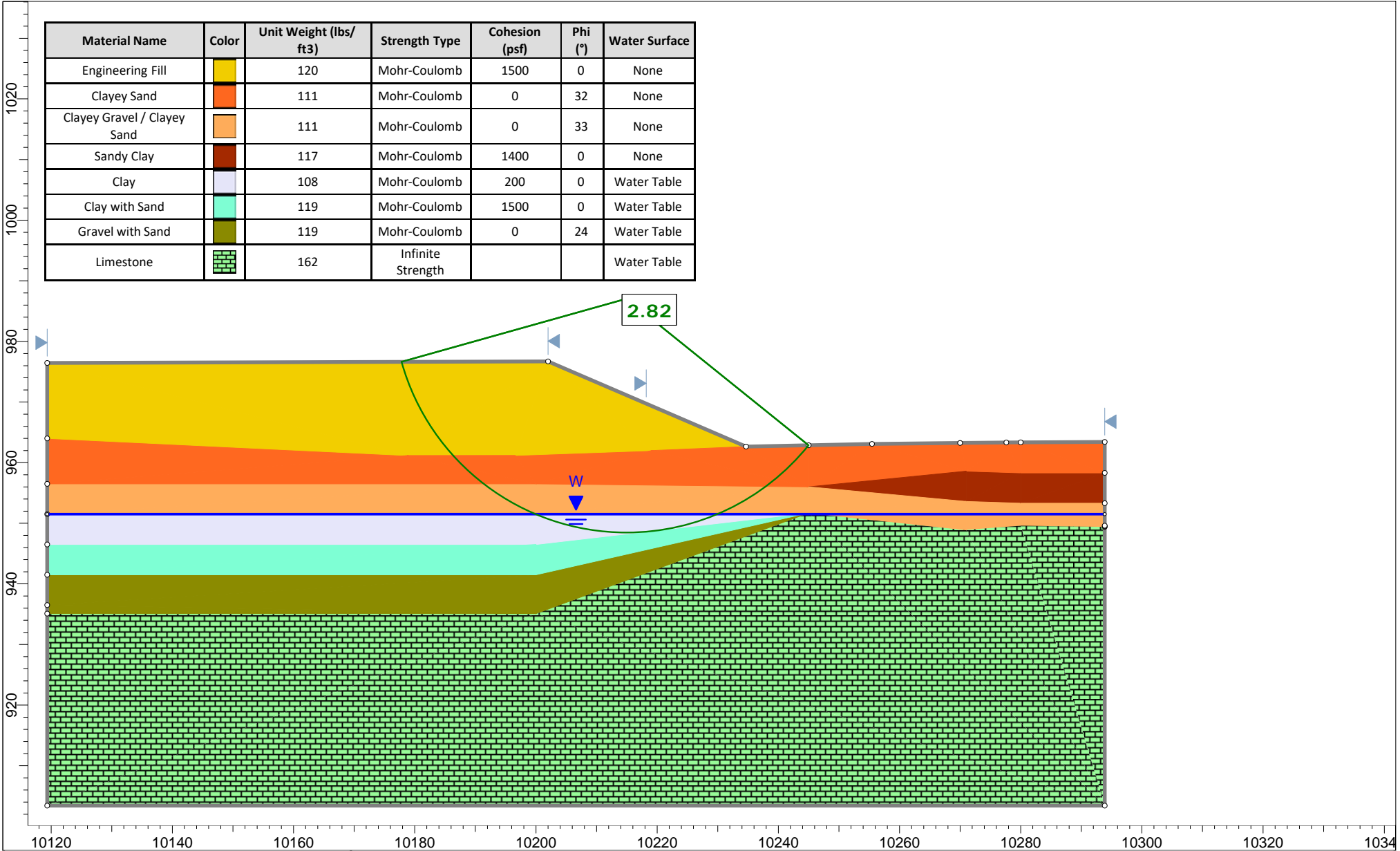
Get USGS Data

PGA:	0.121
F_{PGA} :	1.2
A_S :	0.145
S_S :	0.273
F_A :	1.2
S_{DS} :	0.328
S_1 :	0.088
F_V :	1.7
S_{D1} :	0.149
S_{DC} :	A
T_S :	0.454
T_0 :	0.091

090672 - HWY. 66 REALIGNMENT (LESLIE)(S) DESIGN RESPONSE SPECTRUM



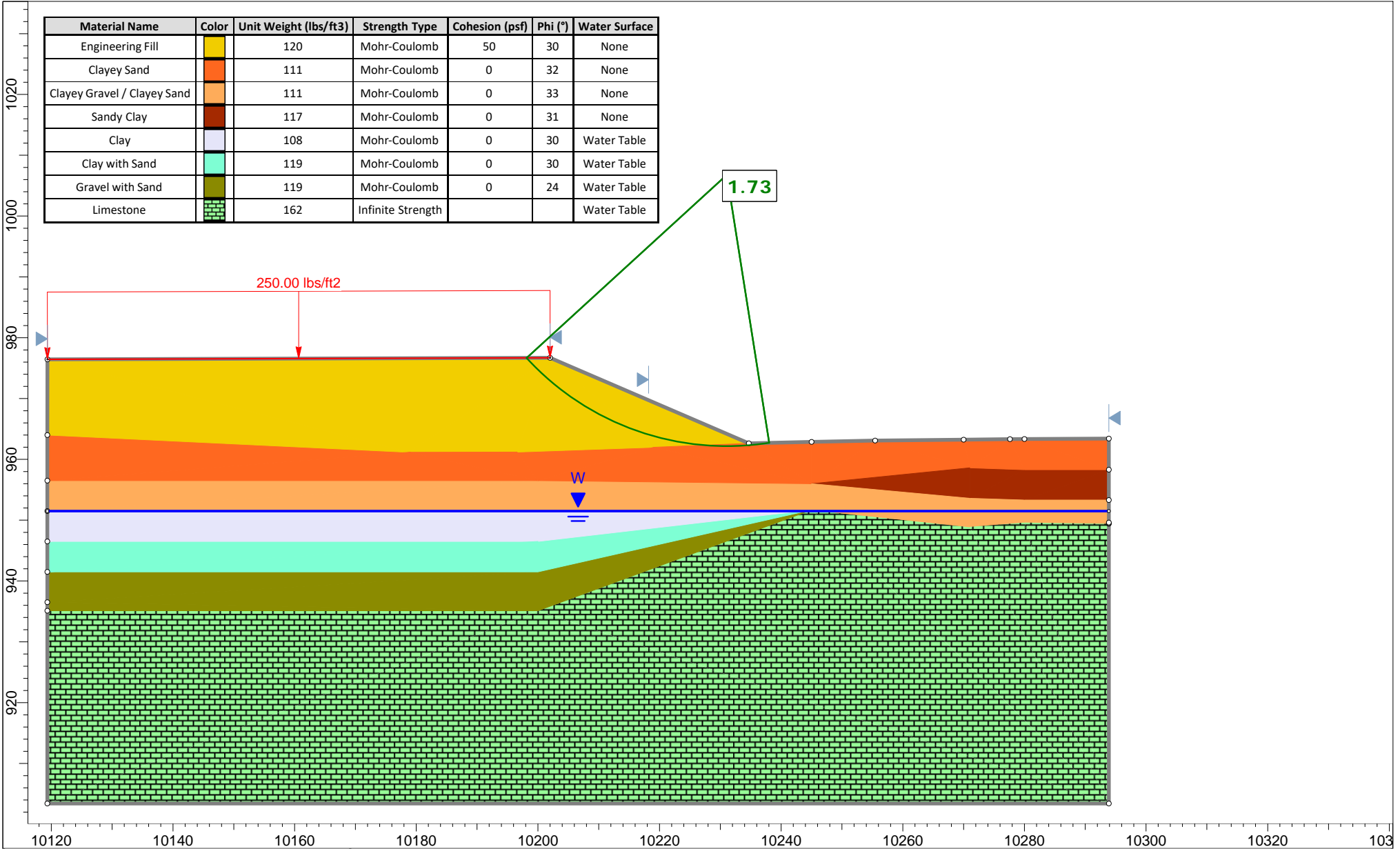
Attachment F



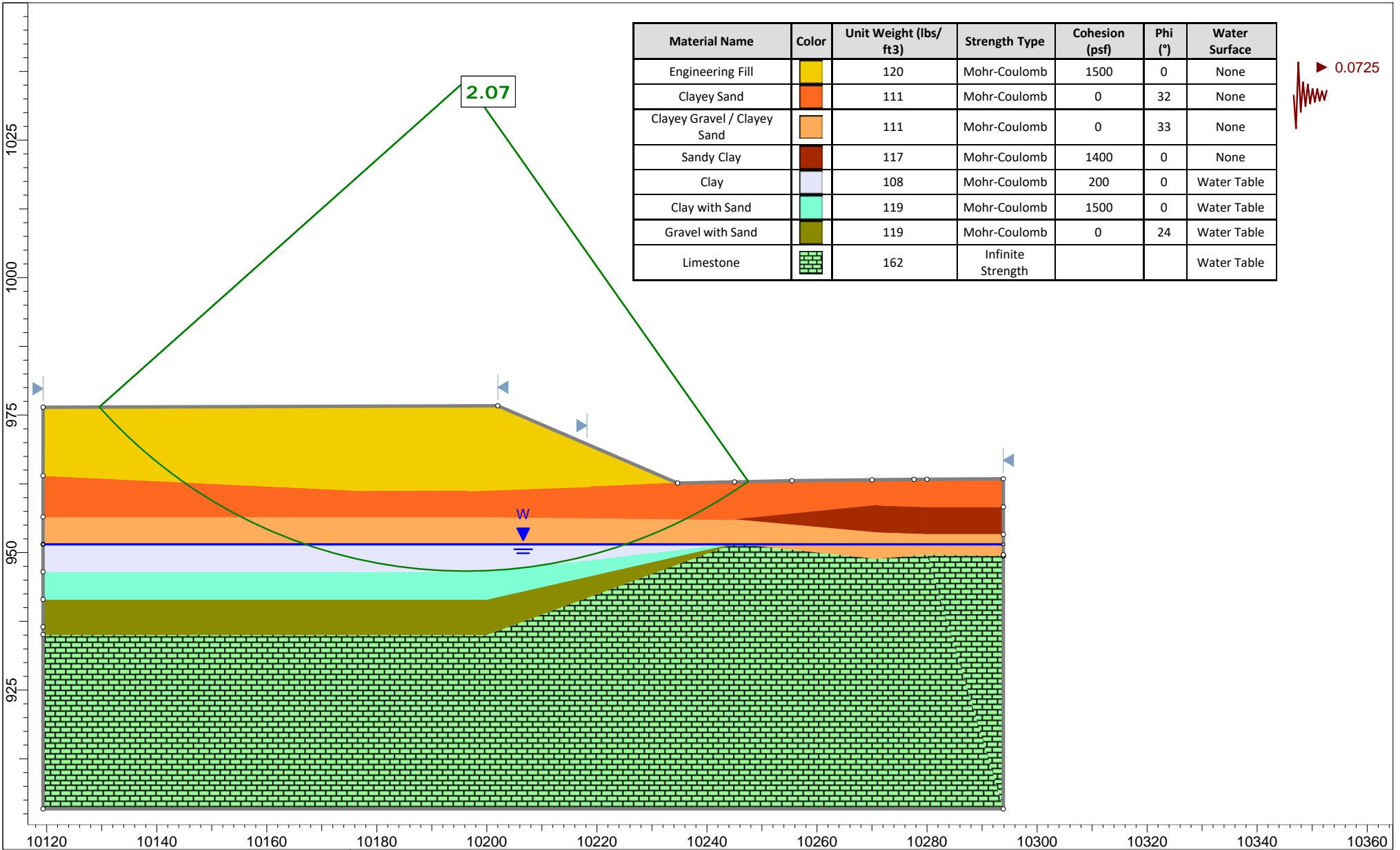
2.82



Project	090672 - Hwy. 66 Realignment (Leslie)(S)		
Site	Hwy. 66 over Cove Creek	Drawn By	PT
Analysis Type	Short Term	Date	7/3/2025
Location	Bent 1	Arkansas Department of Transportation	



	Project 090672 - Hwy. 66 Realignment (Leslie)(S)	
	Site Hwy. 66 over Cove Creek	Drawn By PT
	Analysis Type Long Term	Date 7/3/2025
	Location Bent 1	Arkansas Department of Transportation

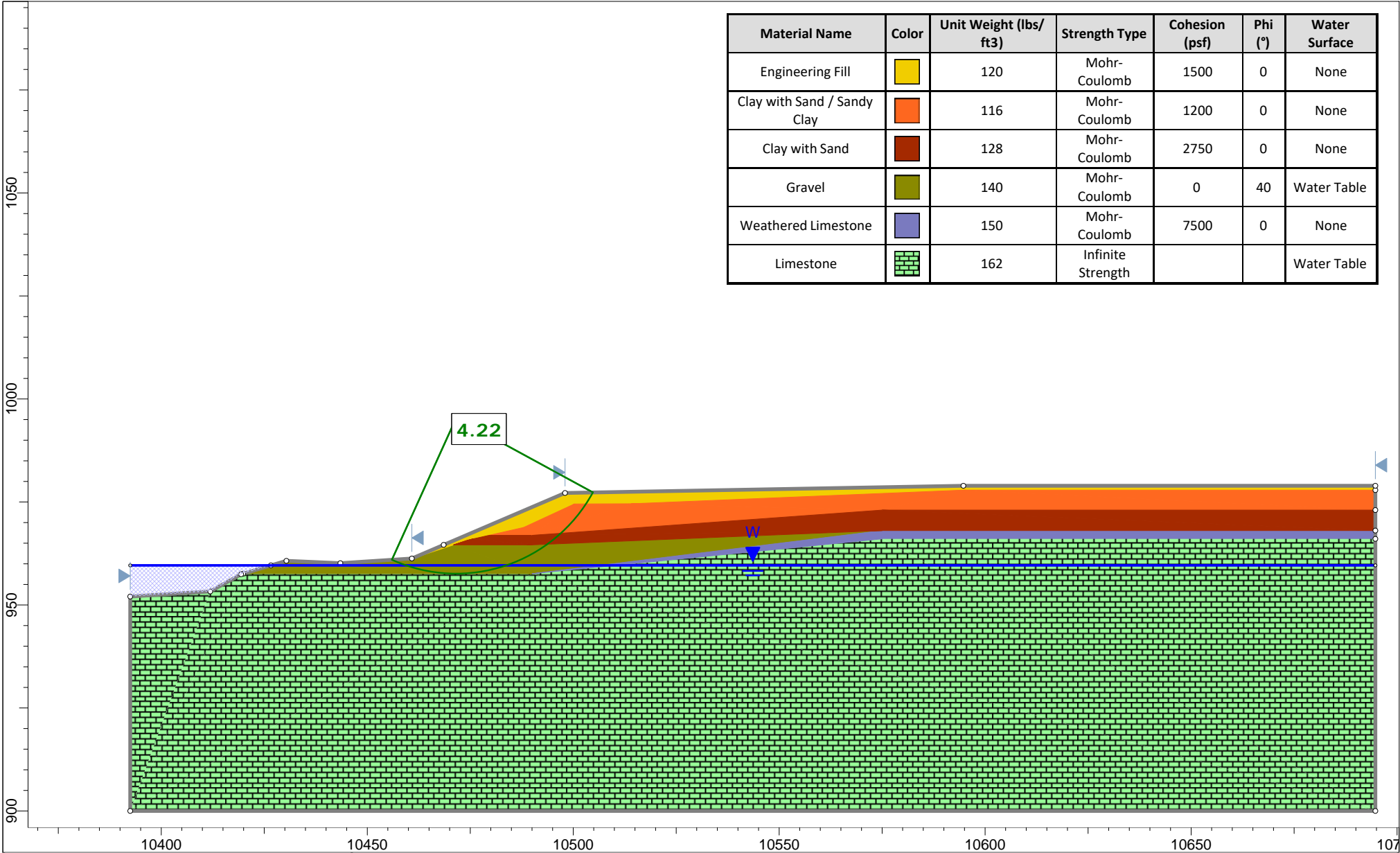


Material Name	Color	Unit Weight (lbs/ft ³)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Engineering Fill	Yellow	120	Mohr-Coulomb	1500	0	None
Clayey Sand	Orange	111	Mohr-Coulomb	0	32	None
Clayey Gravel / Clayey Sand	Light Orange	111	Mohr-Coulomb	0	33	None
Sandy Clay	Brown	117	Mohr-Coulomb	1400	0	None
Clay	Light Blue	108	Mohr-Coulomb	200	0	Water Table
Clay with Sand	Cyan	119	Mohr-Coulomb	1500	0	Water Table
Gravel with Sand	Olive Green	119	Mohr-Coulomb	0	24	Water Table
Limestone	Green Grid	162	Infinite Strength			Water Table

0.0725



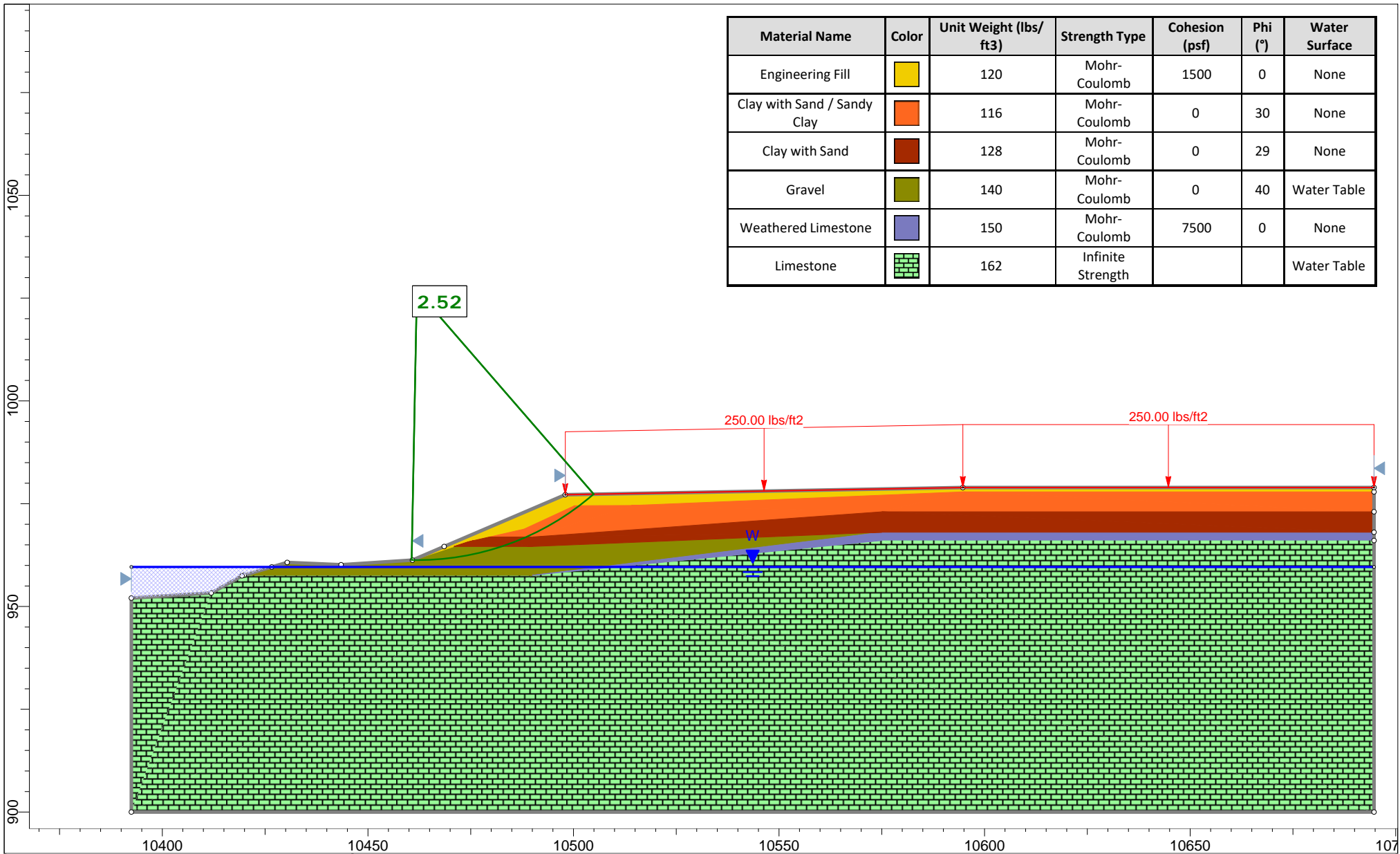
Project	090672 - Hwy. 66 Realignment (Leslie)(S)		
Site	Hwy. 66 over Cove Creek	Drawn By	PT
Analysis Type	Seismic	Date	7/3/2025
Location	Bent 1	Arkansas Department of Transportation	



Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Engineering Fill		120	Mohr-Coulomb	1500	0	None
Clay with Sand / Sandy Clay		116	Mohr-Coulomb	1200	0	None
Clay with Sand		128	Mohr-Coulomb	2750	0	None
Gravel		140	Mohr-Coulomb	0	40	Water Table
Weathered Limestone		150	Mohr-Coulomb	7500	0	None
Limestone		162	Infinite Strength			Water Table









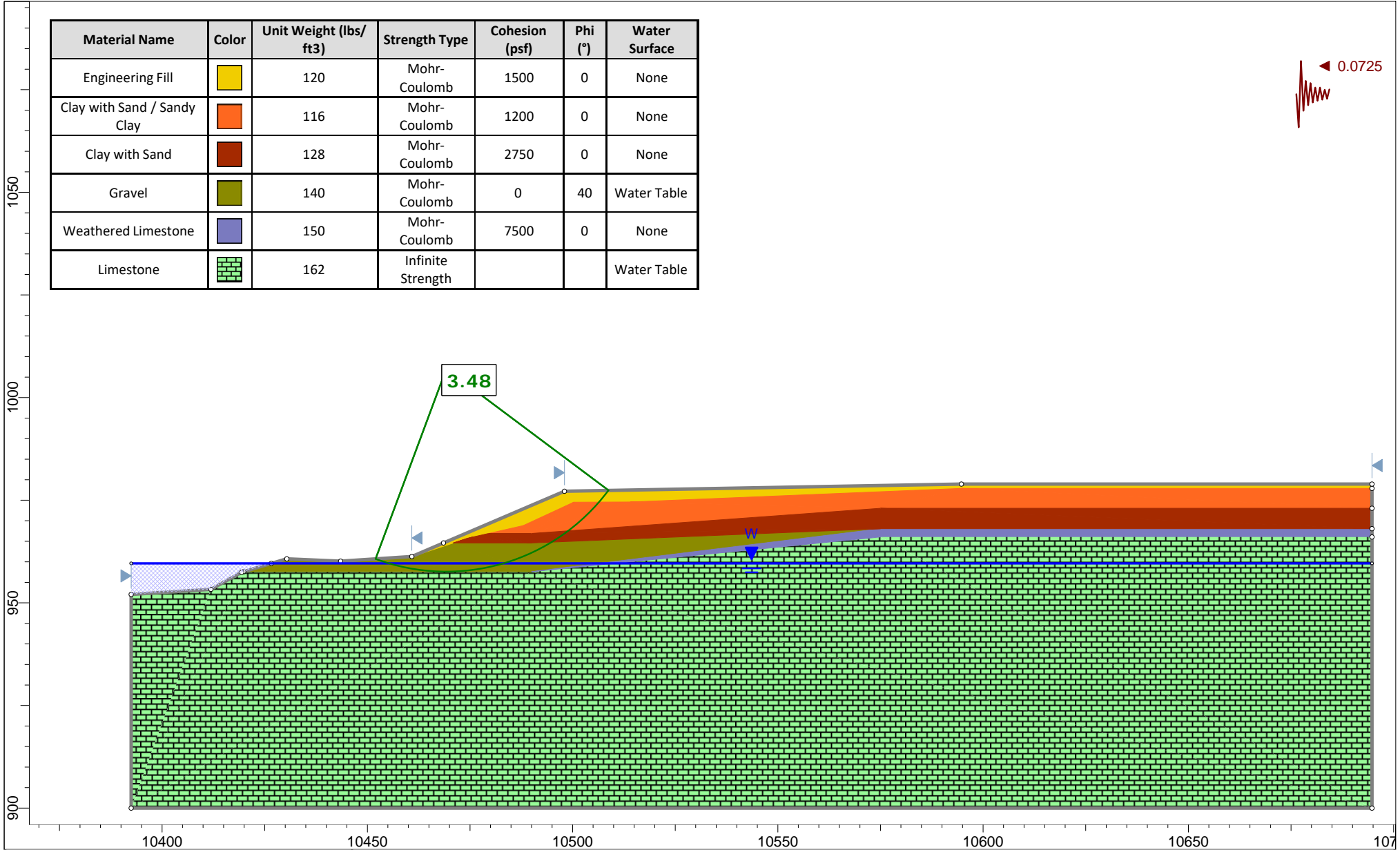
Project	090672 - Hwy. 66 Realignment (Leslie)(S)		
Site	Hwy. 66 over Cove Creek	Drawn By	PT
Analysis Type	Short Term	Date	7/14/2025
Location	Bent 7	Arkansas Department of Transportation	




Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Engineering Fill		120	Mohr-Coulomb	1500	0	None
Clay with Sand / Sandy Clay		116	Mohr-Coulomb	0	30	None
Clay with Sand		128	Mohr-Coulomb	0	29	None
Gravel		140	Mohr-Coulomb	0	40	Water Table
Weathered Limestone		150	Mohr-Coulomb	7500	0	None
Limestone		162	Infinite Strength			Water Table

	Project 090672 - Hwy. 66 Realignment (Leslie)(S)	
	Site Hwy. 66 over Cove Creek	Drawn By PT
	Analysis Type Long Term	Date 7/14/2025
	Location Bent 7	Arkansas Department of Transportation
	SLIDEINTERPRET 9.034	

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Engineering Fill		120	Mohr-Coulomb	1500	0	None
Clay with Sand / Sandy Clay		116	Mohr-Coulomb	1200	0	None
Clay with Sand		128	Mohr-Coulomb	2750	0	None
Gravel		140	Mohr-Coulomb	0	40	Water Table
Weathered Limestone		150	Mohr-Coulomb	7500	0	None
Limestone		162	Infinite Strength			Water Table



	Project 090672 - Hwy. 66 Realignment (Leslie)(S)	
	Site Hwy. 66 over Cove Creek	Drawn By PT
	Analysis Type Seismic	Date 7/14/2025
	Location Bent 7	Arkansas Department of Transportation

Attachment G



Job No.:	090672
Site No.:	1

Input by:	VW	5/20/2025
Checked by:	PJT	5/29/2025
Back-checked by:	MLG	7/14/2025

Bent 1 - Boring 1D

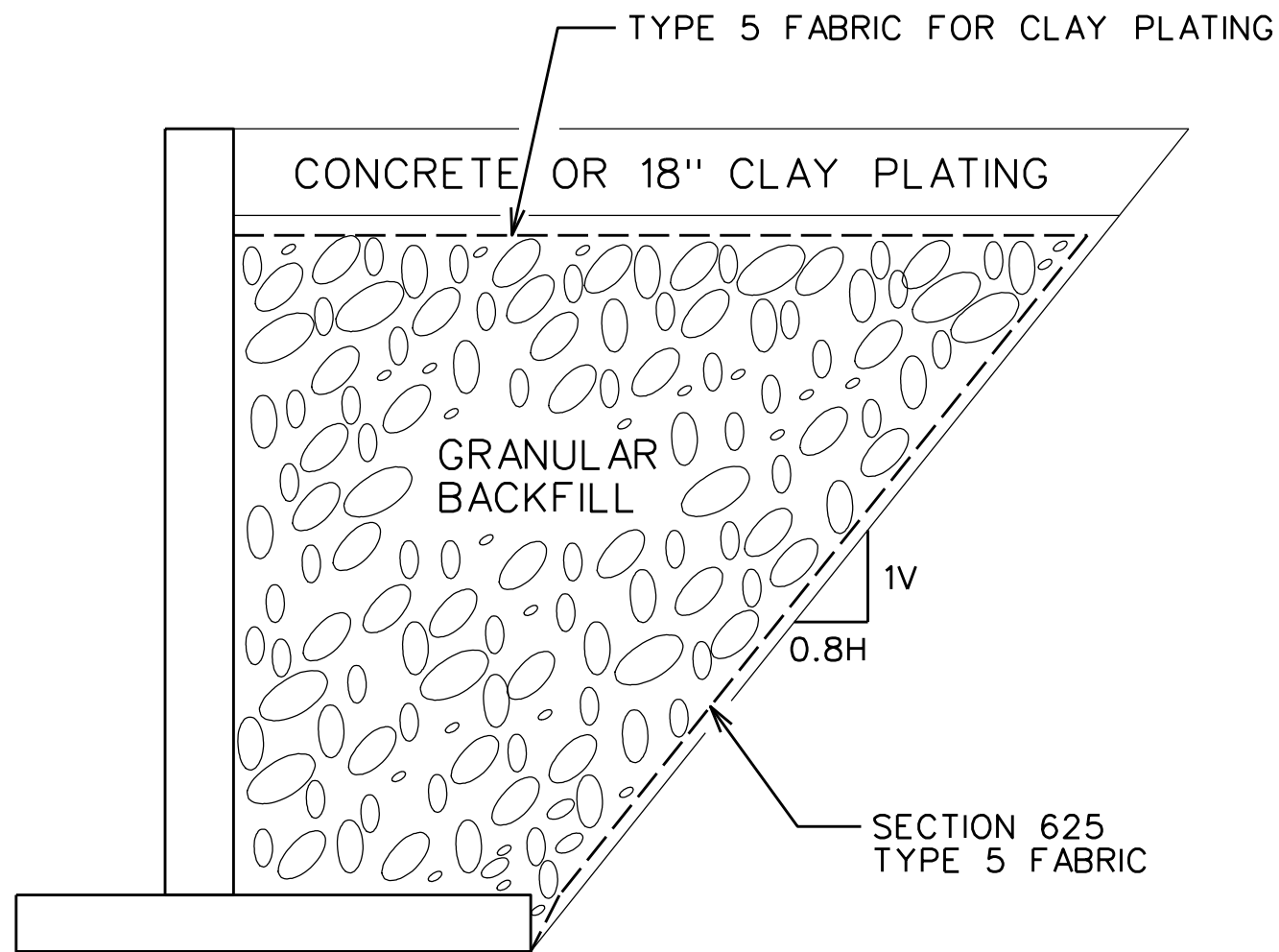
Elevation, ft		Material	Model	Effective Unit Weight, γ' , pcf	Undrained Shear Strength of Soil (C_u) (psf)	Strain Factor (ϵ_{50} for Soil) / k_m for Rock	Friction Angle, ϕ , °	Soil Modulus, k, pci	Uniaxial Compressive Strength, q_u , psi	Rock Mass Modulus, E_{rm} , 10^6 psi	RQD, %
Top	Bottom										
Above Ground Surface		Fill	Soft Clay (Matlock)	120	750	0.010	NA	NA	NA	NA	NA
Ground	951.5	Clayey Sand with Gravel / Clayey Gravel with Sand	Sand (Reese)	115	NA	NA	35	124	NA	NA	NA
951.5	946.5	Clay	Soft Clay (Matlock)	45	200	0.050	NA	NA	NA	NA	NA
946.5	941.5	Gravelly Lean Clay with Sand	Stiff Clay with Free Water (Reese)	55	1500	0.007	NA	500	NA	NA	NA
941.5	935.1	Clayey Gravel with Sand	Sand (Reese)	55	NA	NA	26	20	NA	NA	NA
Below 935.1		Limestone/Shale	Weak Rock	100	NA	0.0005	NA	NA	7000	2.8	75

Bent 7 - Boring 7

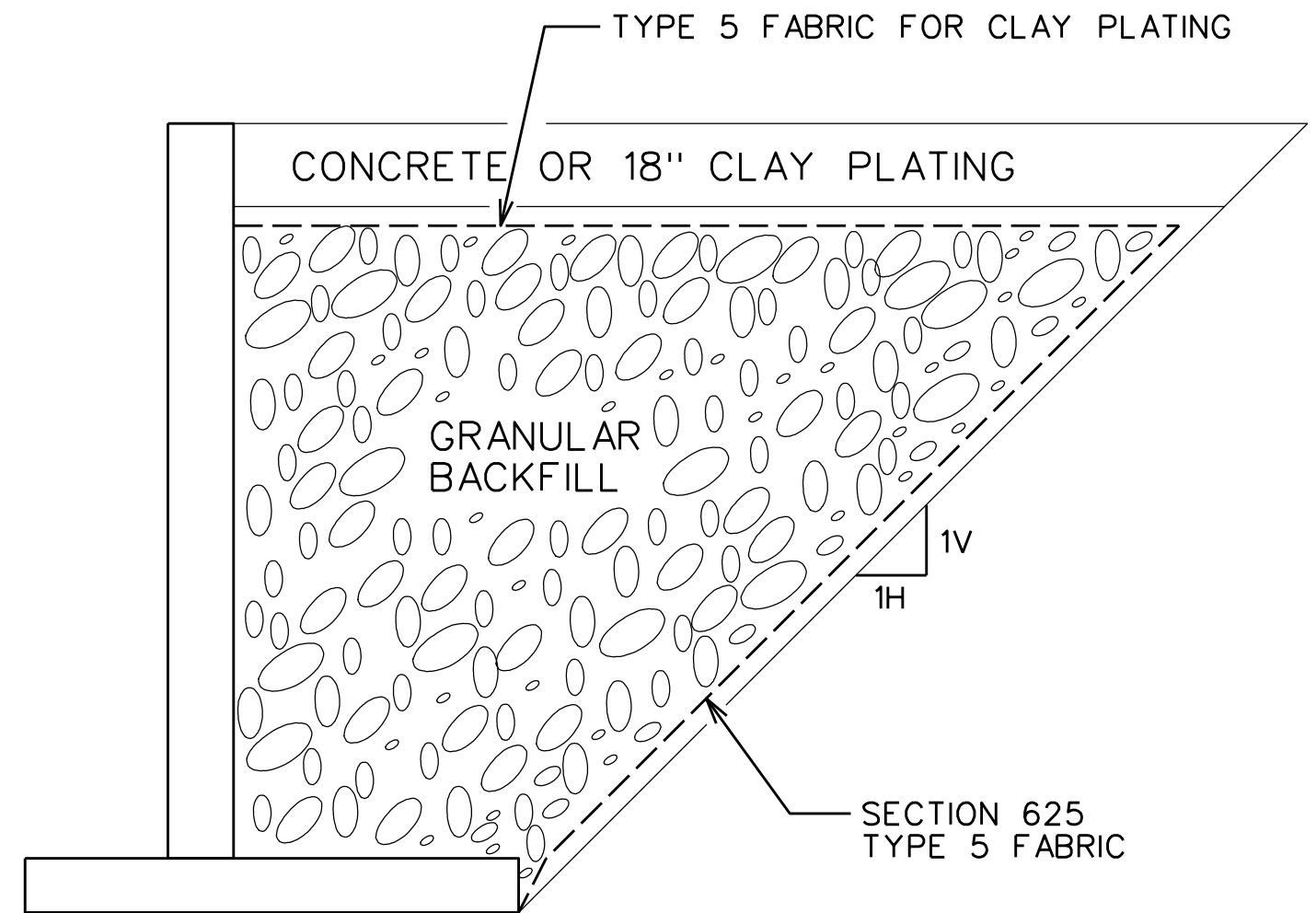
Elevation, ft		Material	Model	Effective Unit Weight, γ' , pcf	Undrained Shear Strength of Soil (C_u) (psf)	Strain Factor (ϵ_{50} for Soil) / k_m for Rock	Friction Angle, ϕ , °	Soil Modulus, k, pci	Uniaxial Compressive Strength, q_u , psi	Rock Mass Modulus, E_{rm} , 10^6 psi	RQD, %
Top	Bottom										
Above Ground Surface		Fill	Soft Clay (Matlock)	120	750	0.010	NA	NA	NA	NA	NA
Ground	964.5	Lean Clay with Sand	Stiff Clay w/o Free Water (Reese)	120	1950	0.007	NA	NA	NA	NA	NA
964.5	957.5	Gravel (Limestone Fragments)	Sand (Reese)	150	NA	NA	40	215	NA	NA	NA
Below 957.5		Limestone/Shale	Weak Rock	100	NA	0.0005	NA	NA	7000	2.8	75

Attachment H

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	AR			
JOB NO.		090672		
GRANULAR BACKFILL FOR RETAINING WALLS				



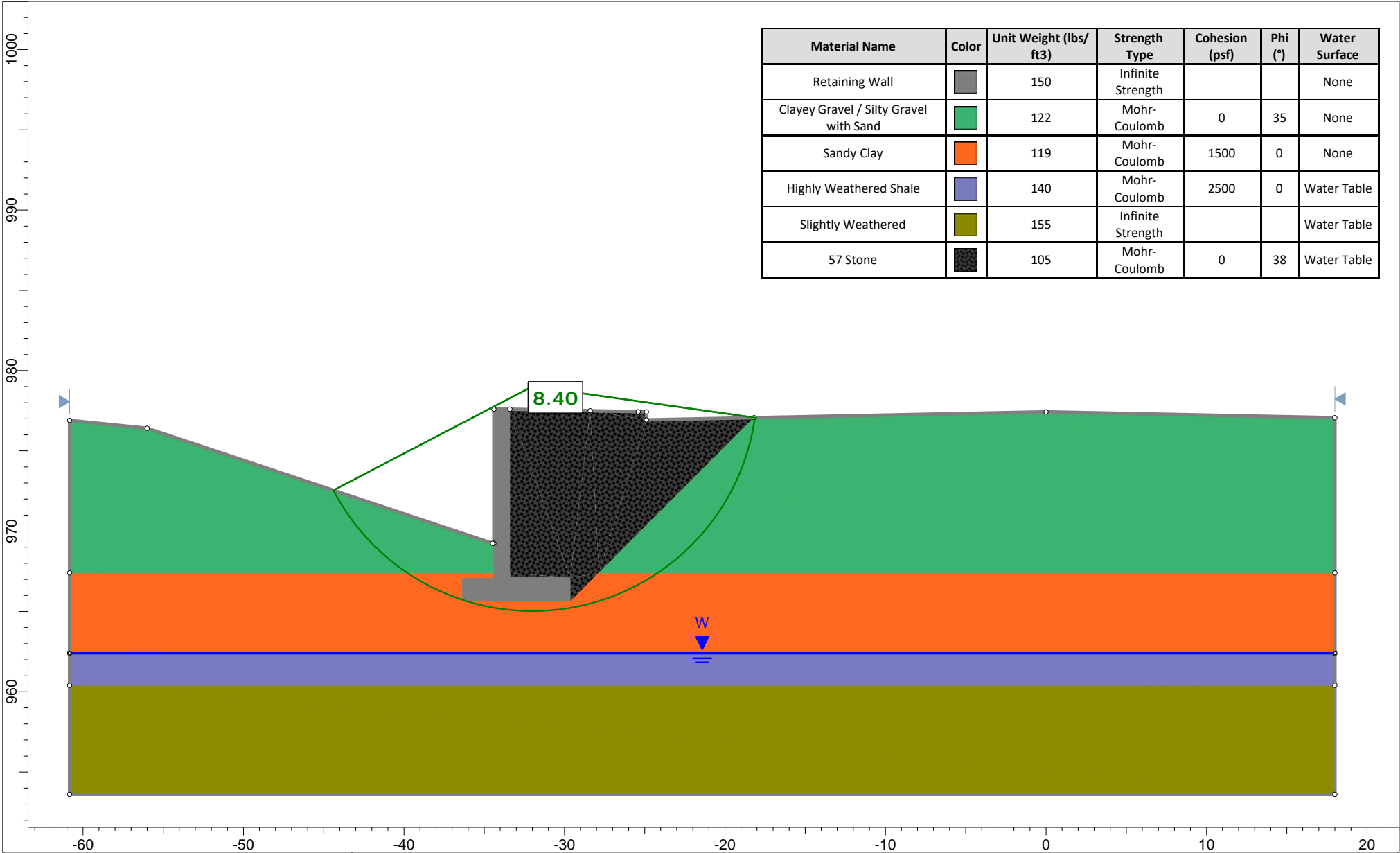
FILL SLOPE



CUT SLOPE

GRANULAR BACKFILL FOR RETAINING WALLS	
HWY. 66 REALIGNMENT (LESLIE)(S) ROUTE 66, SECTION 1 SEARCY COUNTY	
JOB NO. 090672	SHEET 1/1
NTS	

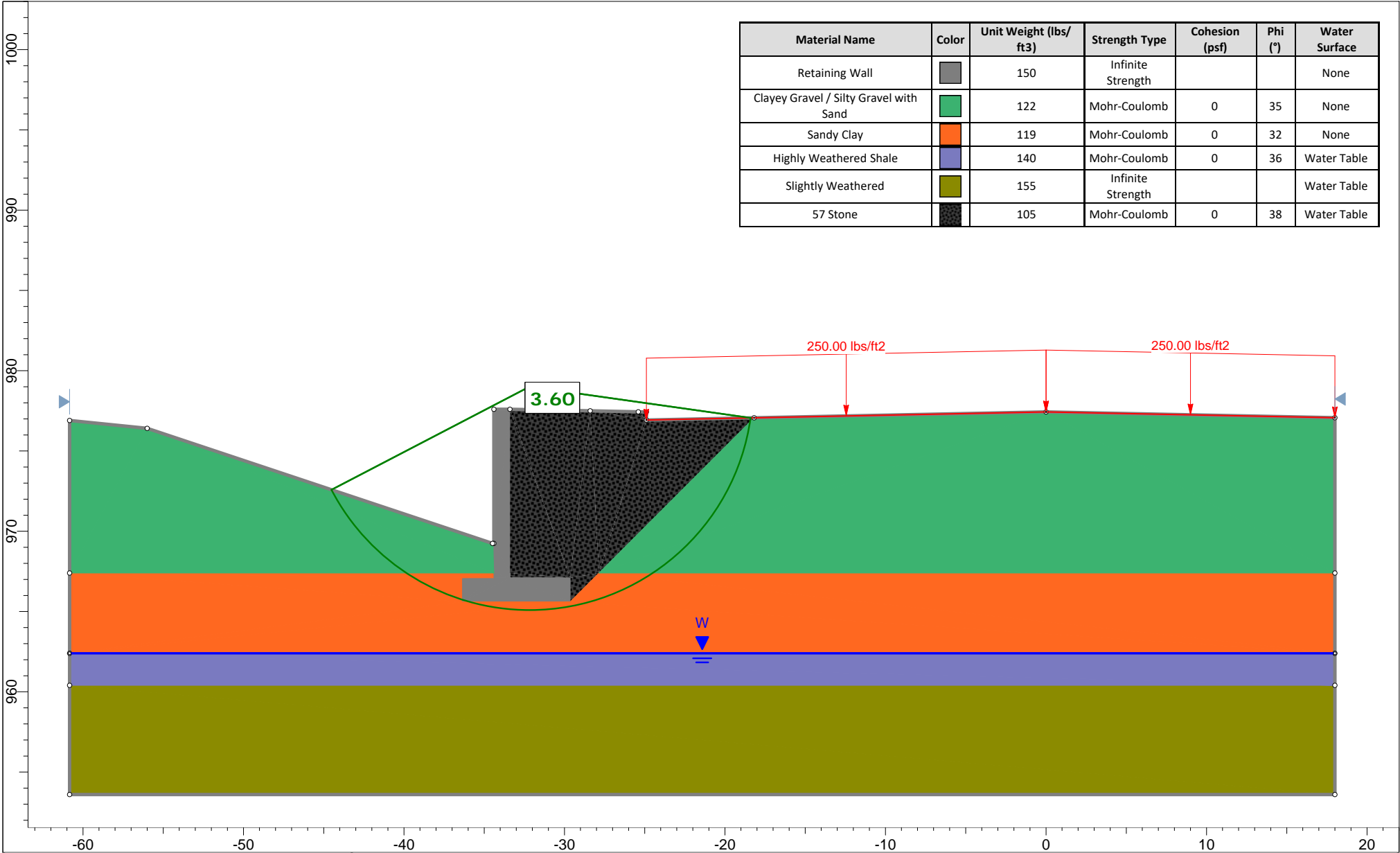
Attachment I



Material Name	Color	Unit Weight (lbs/ft ³)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Retaining Wall	Grey	150	Infinite Strength			None
Clayey Gravel / Silty Gravel with Sand	Green	122	Mohr-Coulomb	0	35	None
Sandy Clay	Orange	119	Mohr-Coulomb	1500	0	None
Highly Weathered Shale	Purple	140	Mohr-Coulomb	2500	0	Water Table
Slightly Weathered	Olive	155	Infinite Strength			Water Table
57 Stone	Black Dotted	105	Mohr-Coulomb	0	38	Water Table



Project	090672 - Hwy. 66 Realignment (Leslie)(S)		
Site	Hwy. 65	Drawn By	PT
Analysis Type	Short Term	Date	7/3/2025
Location	Conventional Retaining Wall	Arkansas Department of Transportation	

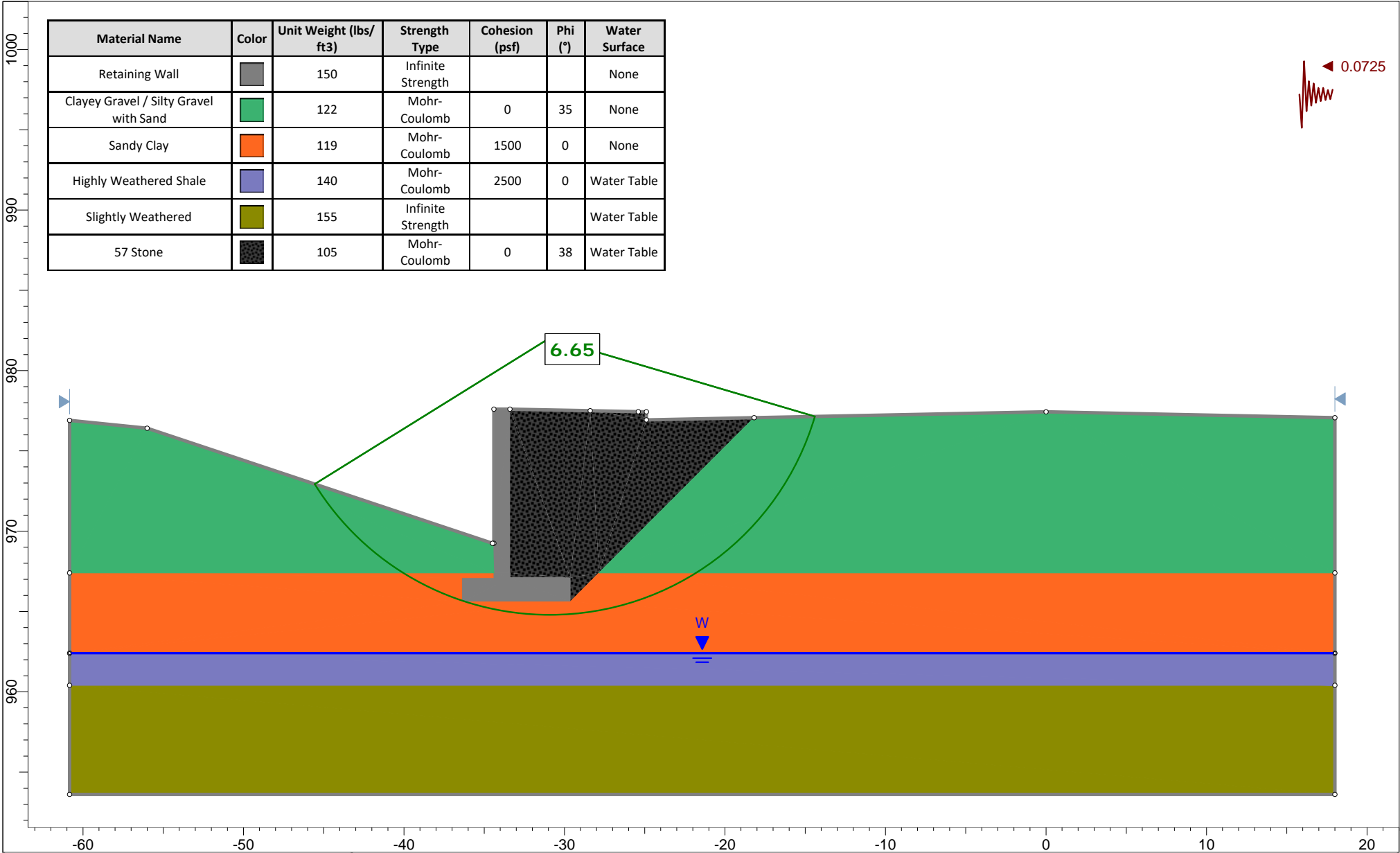


Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Retaining Wall	Grey	150	Infinite Strength			None
Clayey Gravel / Silty Gravel with Sand	Green	122	Mohr-Coulomb	0	35	None
Sandy Clay	Orange	119	Mohr-Coulomb	0	32	None
Highly Weathered Shale	Purple	140	Mohr-Coulomb	0	36	Water Table
Slightly Weathered	Olive	155	Infinite Strength			Water Table
57 Stone	Black Dotted	105	Mohr-Coulomb	0	38	Water Table

	Project		090672 - Hwy. 66 Realignment (Leslie)(S)	
	Site	Hwy. 65	Drawn By	PT
	Analysis Type	Long Term	Date	7/3/2025
	Location	Conventional Retaining Wall	Arkansas Department of Transportation	

Material Name	Color	Unit Weight (lbs/ft3)	Strength Type	Cohesion (psf)	Phi (°)	Water Surface
Retaining Wall	Grey	150	Infinite Strength			None
Clayey Gravel / Silty Gravel with Sand	Green	122	Mohr-Coulomb	0	35	None
Sandy Clay	Orange	119	Mohr-Coulomb	1500	0	None
Highly Weathered Shale	Blue	140	Mohr-Coulomb	2500	0	Water Table
Slightly Weathered	Olive	155	Infinite Strength			Water Table
57 Stone	Black Dotted	105	Mohr-Coulomb	0	38	Water Table

0.0725



Project	090672 - Hwy. 66 Realignment (Leslie)(S)		
Site	Hwy. 65	Drawn By	PT
Analysis Type	Seismic	Date	7/3/2025
Location	Conventional Retaining Wall	Arkansas Department of Transportation	