ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N Y

December 11, 1980

Director of Nuclear Reactor Regulation
Attention: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Tendon Inspection and
Lift-Off Verification
Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Crutchfield:

As a result of a meeting held on October 21, 1980 between Messrs. Nowicki, Chen and Hafiz and personnel of Rochester Gas and Electric Corp./Gilbert Associates Inc., we are providing additional information concerning the rock anchors for the containment at Ginna regarding the above referenced subject.

In accordance with a request made by Dr. John Chen, the attached report contains information relating to the following subjects:

1) rock anchor design
2) effect of rock creep
3) rock anchor to wall tendon coupling procedure

In addition to the above items, miscellaneous information relating to the design and installation of the rock anchors is included in the Attachment of the report. Also attached are the post-tensioning field records for each rock anchor (Note: These records should replace the single sheet marked Sample in Tab 7 of the report).

A001 S/1
ENCL TO: TERA (RETURN TO FILES AFTER FILMING)

If you have any questions or comments, please feel free to contact me.

Sincerely yours,

John E. Maier
Vice President
Electric and Steam Production

Attachments
xc: Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region 1
U. S. Nuclear Regulatory Commission
(Cover Letter Only)

RYERSON METALOGICED
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1

1ST STAGE GROUT AT ____'

HOLE NO #1 ~~MEMBER~~ CABLE NUMBER 77 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 88-A-673 - COIL # 177
80-A-640 " 71

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 3/16		
1500		1 5/16		
2500		1 1/2		
3500		1 3/4		
4500		2"		
5500		2 1/4		
6500 ←		2 1/2		
LIFT-OFF.	5800			
		TOTAL SHIMS USED →	1 3/4	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/7

MEMBER Hole # 7 CABLE NUMBER 65 LENGTH Grout Level Below Top of Anch. Pl.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT# 88A-673 Coil # 75

STRESS CONDITIONS FOR 1 - 7 STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
1500			3/4		
1500			1 1/1		
2500			1 3/16		
3500			1 7/16		
1500			1 5/8		
RESET DIAL					
5500			1 7/8		
6550			2 3/16		
DEPTH 5700					Rings = 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/9

GROUT LEVEL BELOW TOP OF ASSEMBLY

MEMBER HOLE # 3 CABLE NUMBER 71 LENGTH

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 39A553 Coil 35

STRESS CONDITIONS FOR 7 STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

Theoretical GAUGE PRESSURE	Actual	Dial Reading	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500			5/8		
1500			7/8		
2500			1 1/16		
3500			1 1/4		
4500			1 7/16		
5500			1 11/16		
6560			1 15/16		
LIFT-OFF	5908				
				TOTAL SHIM -	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341371 - ROCK ANCHORS

Date 9/7/66

MEMBER HOLE # 4 CABLE NUMBER 6 LENGTH GROUT LEVEL BELOW TOP OF ANCH. IN.

NUMBER OF WIRES 90 RA STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 84A-715 COIL 42

STRESS CONDITIONS FOR 7 STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
1500	600		3/4		
1500	1500		7/8		
2500	2560		1 1/16		
3500	3500		1 5/16		1/4
4500	4500		1 1/2		
5500	5500		1 3/4		
6550	6550		2		
LIFT-OFF	5900				TOTAL SWING 1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T241-1 · ROCK ANCHORS

Date 9/9/66

MEMBER HOLE # 5 CABLE NUMBER 60 LENGTH ~~GROUT LEVEL~~ BELOW TOP OF ROCK

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT. # 81-A-679 - COIL 104

STRESS CONDITIONS FOR Z STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ · ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	2950	1 1/4			
1500	1580	15/16			
2500	2400	1 3/16			
3500	3500	1 5/16			1 1/4
4500	4500	1 9/16			1 5/16
5500	5500	1 13/16			1/4
6550	6550	2 1/16			1/4
LIFT-OFF	5950				1/8
					TOTAL ELONG. = 1 9/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/7/66

~~HEADER~~ HOLE # 6 CABLE NUMBER 69 LENGTH GROUT LEVEL BELOW TOP of ANCHOR HEAD

NUMBER OF WIRES 90 R.A ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 38-A-583 - Coil # 72

STRESS CONDITIONS FOR 80 % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
BACKOFF FORCE .7ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500			11/16		
1500			1 1/8		
2500			1 1/8		
3500			1 5/16		
4500			1 9/16		
FIRST DIAL			—		
5500			1 3/4		
6550			2 1/16		
LIFT OFF	6550				Shims 1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341-71 · ROCK ANCHOR

Date 9/9/66

MEMBER HOLE # 7 CABLE NUMBER 44 LENGTH GROUT LEVEL BELOW TOP OF ANCH.T.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT# 81-A-679 COIL 97

STRESS CONDITIONS FOR X STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
LOCKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETIC GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	600		3/4		
1500	1600		15/16		
2500	2500		1 1/8		
3500	3500		1 5/16		
4500	4400		1 1/2		
5500	5500		1 3/4		
6550	6550		2		
LIFT-OFF	5860				
					TOTAL SLIP = 1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T3413-1 · ROCK ANCHORS

Date 9/8/66

MEMBER HOLE # 8 CABLE NUMBER 4 LENGTH GROUT LEVEL BELOW TOP OF ANCH. HD

NUMBER OF WIRES 90 R.A. STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 84-A-715 -- COIL # 41

STRESS CONDITIONS FOR ___ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ___ AND FINAL GAUGE PRESSURE OF ___ · ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORET. GAUGE PRESSURE	ACTUAL	DIAL Reading	RAM SCALE POSITION Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	450		3/4		
1500	1500		15/16		
2500	2500		1 1/8		
3500	3500		1 5/16		
4500	4500		1 7/16		
5500	5500		1 5/8		
6550	6550		2 7/16		
JACK OFF	5900				
					TOTAL SLIP = 1 1/4

KEYSTONE METALOGICS

POST-TENSIONING FIELD RECORD

Date 9/12

NAME Hose 9 CABLE NUMBER 70 LENGTH

NUMBER OF WIRES 90 K-H STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT. # 88A673 - Coil 175

STRESS CONDITIONS FOR Z STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6250
EXCESS FORCE			575
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6500
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

GAUGE PRESSURE		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	1/16	1/16		
1500		3/4		
2500		1 1/16		
3500	3460	1 1/8		
4500	4500	1 1/2		
5000	5500	1 3/4		
6500	6550	2 1/16		
LIFT OFF	5800			TOTAL 1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-7-66

1ST STAGE GROUT AT ____ '____"

HOLE NO ~~MEMBER~~ 10 CABLE NUMBER 64 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 81-A-629 - Coil #103
88A-673 - 76

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500		7/8		
1500		1"		
2500		1 3/16		
3500		1 1/2		
4500		1 7/8		
5500		2"		
6500		2 1/8		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

EASTEC CORP. SITE #1 PH. - ROCK HILL, SC

Date 9/12/66

MEMBER HOLE # 11 CABLE NUMBER 68 LENGTH GROUT LEVEL BELOW TOP OF WALL

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

NT-88-A-673-Coil 75

38-A 583- " 72

STRESS CONDITIONS FOR Z STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORET. GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL RAM READING	RAM POSITION READING	INCREMENT OF ELONGATION	NET ELONGATION
500	600		3/4		
1500	1500		15/16		
2500	2500		1 1/16		
3500	3400		1 1/8		
4500	4500		1 9/16		
5500	5560		1 3/4		
6550	6560		2 1/16		
JACKOFF	5800				
				TOTAL	1.4"

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341341 - ROCK ANCHORS

Date 9/8/66

GROUT LEVEL BELOW TOP OF ARCH 14

MEMBER HOLE # 12 CABLE NUMBER 62 LENGTH

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT. # 81-A 679 - COIL 103

STRESS CONDITIONS FOR 7 STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORET. GAUGE PRESSURE	ACTUAL	DIAL Reading	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	500		3/4		
1500	1500		13/16		
2500	2500		1 1/8		
3500	3500		1 5/16		
4500	4500		1 1/2		
5500	5500		1 3/4		
6550	6550		2 1/16		
JET-OFF	5900				
					TOTAL SHIM 1 1/4

POOR ORIGINAL

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341391 · ROCK ANCHORS

Date Sept 23

MEMBER HOLE # 13 CABLE NUMBER 5 LENGTH GROUT LEVEL BELOW TOP OF ANCH. H.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

MILL HT # 84A-715 Co. # 41642

STRESS CONDITIONS FOR 100 % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	✓		3/4		
1500	✓		7/8		
2500	✓		1 1/16		
3500	✓		1 5/16		
4500	✓		1 9/16		
5500	✓		1 13/16		
6550	6500		2 1/16		
LIFT-OFF	5700				
				TOTAL SLIP	3 1/2 + 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 2IT341871 - ROCK ANCHORS

Date 9/8/66

~~MEMBER~~ Hole # 14 CABLE NUMBER 72 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT# 38-A 673 Co.C "175

HT# 38-A 583 " " 71

STRESS CONDITIONS FOR 80% STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
JACKOFF FORCE .7ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL Reading	RAM POSITION Scale	INCREMENT OF ELONGATION	NET ELONGATION
500			3/4		
1500			15/16		
2500			1 1/8		
3500			1 3/16		
4500			1 5/16		
REF. Dial					
5500			1 13/16		
6550			2 1/8		
LIFT OFF	5800		5800		Shims 1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9/4/66

1ST STAGE GROUT AT ____'

HOLE NO. ~~MEMBER~~ 15 CABLE NUMBER 63 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT - 81-A-679 - COIL 104
" 88-A-673 - " 75

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	✓	3/4		
1500	✓	1 5/16		
2500	✓	1 1/8		
3500	✓	1 5/16		
4500	✓	1 1/8		
5500	✓	1 1/8		
6500	✓	2 1/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	3/4 + 1/16 - 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341?1 - ROCK ANCHORS

Date 9/8/66

MEMBER HOLE # 16 CABLE NUMBER 66 LENGTH GROUT LAYER BELOW TOP of ANCH.

NUMBER OF WIRES 90 R.A. STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 88-A-673 Coil # 76

STRESS CONDITIONS FOR 70 % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
LOCKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	500		3/4		
1500	1500		15/16		
2500	2500		1 1/8		
3500	3500		1 5/16		
4500	4500		1 1/2		
5500	5500		1 3/4		
6550	6550		2		
LIFT-OFF	5900				
					TOTAL SUM - 1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9/22/66

1ST STAGE GROUT AT ____

HOLE NO ~~MEMBER~~ 17 CABLE NUMBER 15 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT.# 88-A-673- Coil 177

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.'s		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	✓	3/4		
1500	1800	1 1/16		
2500	✓	1 3/16		
3500	3700	1 7/16		
4500	✓	1 11/16		
5500	✓	1 7/4		
6500	✓	2 1/8		
LIFT-OFF	5800			
			TOTAL SHIMS USED →	3/4 + 1/2 + 1/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date Test Hole - First one Pulled 1st STAGE GROUT AT ____'

HOLE NO 18 ~~MEMBER~~ CABLE NUMBER 46 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 81-A-679- Coil #94
do " 93

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT.			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____	IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500				
1500				
2500				
3500				
4500				
5500				
6500				
LIFT-OFF	5800			
			TOTAL SHIMS USED →	1 3/8

Spec maximum Full Test 9/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341.71 - ROCK ANCHORS

Date Sept 26

~~HEADER~~ HOLE # 19 CABLE NUMBER 45 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.H ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 81-A-679 - COIL # 94

STRESS CONDITIONS FOR 70% STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .80 ULT			6550
JACKOFF FORCE .70 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500		500	11/16		
1500		1500	13/16		
2500		2500	1 1/16		
3500		3400	1 5/16		
4500		4500	1 9/16		
5500		5500	1 13/16		
6550		6550	2 1/8		
LIFTOFF 5900					
					TOTAL STRETCH 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341241 - ROCK ANCHORS

Date 9/8

MEMBER HOLE # 20 CABLE NUMBER 84 LENGTH GROUT LEVEL BELOW TOP OF ASSY...

NUMBER OF WIRES 90 R.A STRESSING END

RAM-AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 80A-690 - COIL # 43
98A-673 - 188

STRESS CONDITIONS FOR ___ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		___ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ___ AND FINAL GAUGE PRESSURE OF ___ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	800		13/16		
1500	1500		15/16		
2500	2500		1 1/8		
3500	3500		1 3/8		
4500	4400		1 5/8		
5500	5500		1 7/8		
6550	6550		1 1/4		
LIFT-OFF	5900				
					TOTAL SLIM - 1 7/16

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341291 - ROCK ANCHORS

Date Sept 26

~~MEMBER~~ HOLE # 21 CABLE NUMBER 102 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD.

NUMBER OF WIRES 90 R.A ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-38-A-583-CAL #74
84-A-715 27

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8 ULT			6550
BACKOFF FORCE .7 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING POSITION	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500	600		3/4		
1500	1500		15/16		
2500	2400		1 1/8		
3500	3500		1 3/8		
4500	4500		1 9/16		
5500	5500		1 13/16		
6550	6550		2 1/8		
LIFT-OFF	5800				
					TOTAL STRING 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/8/66

MEMBER Hole # 27 CABLE NUMBER 93 LENGTH Grout Level Below Top of Anch.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 38A583 - C.I.C 8.0

STRESS CONDITIONS FOR ___ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE	5		5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ___ AND FINAL GAUGE PRESSURE OF ___ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	650		3/4		
1500	1560		1"		
2500	2400		1 1/8		
3500	3400		1 3/8		
4500	4500		1 9/16		
RESET DIAL	—	—	—		
5500	5600		1 13/16		
6550	6545		2 1/16		
LIFT OFF	5700			3/4 + 1/4 + 1/8 + 1/16	= 15/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9-27

~~WEDGE~~ HOLE # 23 CABLE NUMBER 92 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 88-A-673 COIL # 186

38-A-583 79

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
BACKOFF FORCE .7ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE, .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL Reading POSITION	RAM POSITION Scale	INCREMENT OF ELONGATION	NET ELONGATION
500	650		1/8		
1500	1500		1 1/16		
2500	2500		1 1/4		
3500	3500		1 1/2		
4500	4500		1 3/4		
5500	5500		1 15/16		
6550	6550		2 1/4		
LIFT-OFF	5900				
					TOTAL SETTING

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/8/66

MEMBER Hole # 24 CABLE NUMBER 87 LENGTH Grout Level Below Top of Anch. Hd

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 80-A-690 - 44
HT 88-A-673 Coil 187

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE	5		5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM - SCALE POSITION READING	INCREMENT OF ELONGATION	NET ELONGATION
1500	1600		3/4		
1500	1450		15/16		
2500	2500		1		
3500	3500		1 3/8		
4500	4500		1 3/16		
REST DIAL					
5500	5500		1 1/4		
6550	6550		2 1/4		
LIFT-OFF	6000				1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T.341.91 - ROCK ANCHORS

Date 9-27

~~MEMBER~~ HOLE # 25 CABLE NUMBER 16 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.H ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-88-A-590 - Coil #60

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8 ULT			6550
BACKOFF FORCE .7 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORET. GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION STROKE	INCREMENT OF ELONGATION	NET ELONGATION
500	500		3/4		
1500	1500		1"		
2500	2500		1 3/16		
3500	3500		1 7/16		
4500	4500		1 5/8		
5500	5500		1 7/8		
6550	6550		2 3/16		
LIFT-OFF	5800				
					TOTAL STRETCH 1 3/8

3/4
1/4
1/16

RYERSON
JOSEPH T. RYERSON & SON, INC.
METALOGOS

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9/8

~~MEMBER~~ HOLE # 26 CABLE NUMBER 100 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT # 38A583 Coil # 73

STRESS CONDITIONS FOR 80 % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
BACKOFF FORCE .7ULT.			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
1500	500		13/16		
1500	1400		1 1/16		
2500	2550		1 1/4		
3500	3500		1 7/16		
4500	4450		1 5/8		
RESET DIAL	—		—		
5500	5500		1 13/16		
6550	6550		2 3/16		
LIFTOFF	5800				1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891. ROCK ANCHORS

Date 10-6

1ST STAGE GROUT AT ____'

HOLE NO 27 CABLE NUMBER 8A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 83-A-714- Coil #8

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

*ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 1/4

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341?91 - ROCK SPRINGS

Date 9-27

~~HEADER~~ HOLE # 28 CABLE NUMBER 129 LENGTH GROUT LEVEL - BOTTOM OF ANCHOR PLATE

NUMBER OF WIRES 90 K.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT# 84-A-686 - COIL #25

STRESS CONDITIONS FOR ___ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .7 ULT			6550
JACKOFF FORCE .7 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .7			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		___ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ___ AND FINAL GAUGE PRESSURE OF ___ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION STROKE	INCREMENT OF ELONGATION	NET ELONGATION
500	500		11/16		
1500	1500		7/8		
2500	2600		1 1/8		
3500	3500		1 5/16		
4500	4500		1 1/2		
5500	5500		1 3/4		
6550	6550		2 1/32		
LIFT-OFF	5600				
					TOTAL STRETCH 1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-6 1ST STAGE GROUT AT 1'

HOLE NO ~~MEMBER~~ 29 CABLE NUMBER 56A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT#. 38-A-583- COIL# 49
83-A-714 - #8

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF _____ AND FINAL GAUGE PRESSURE OF _____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2		
6500		2 5/16		
LIFT-OFF	5703			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-14 — 1ST STAGE GROUT AT ____'

HOLE NO 30 — CABLE NUMBER 43A — LENGTH 33-10½

NUMBER OF WIRES 90 — STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 83-A-714- Coil# 8 & Coil #7

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	550	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 7/16		
4500		1 13/16		
5500		2 1/16		
6500		2 5/16		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T-241-1 - ROCK HOUSING

Date 9-27

~~WEDGE~~ HOLE # 31 CABLE NUMBER 96 GROUT LEVEL FROM TIP - ANCH. HEAD LENGTH

NUMBER OF WIRES 90 F. H STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 38-A-583 COIL # 77 & 79

STRESS CONDITIONS FOR ___ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		___ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ___ AND FINAL GAUGE PRESSURE OF ___ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEOR. GAUGE PRESSURE	ACTUAL	DIAL READ. - POSITION-WIRE	RAM	INCREMENT OF ELONGATION	NET ELONGATION
500	600		3/8		
1500	1500		1 1/16		
2500	2500		1 5/16		
3500	3500		1 1/2		
4500	4500		1 3/4		
5500	5500		2		
6550	6550		2 1/4		
LIFTOFF	5960				
					TOTAL STROKE 1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-6

1ST STAGE GROUT AT ____'

HOLE NO 32 ~~MEMBER~~ CABLE NUMBER 95 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 38-A 583- COIL #80

88-A-673- #185

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5000	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 11/16		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF	5700			
		TOTAL SHIMS USED →	1 3/16	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891 - ROCK ANCHORS

Date 10-14

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 33 CABLE NUMBER 28A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39-A-553 - COIL #'S - 36 & 38

STRESS CONDITIONS FOR ____ % STRESSING.			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 5/8		
5500		1 13/16		
6500		2 3/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 1/4

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-27

1ST STAGE GROUT AT ____'

HOLE NO 34 ~~MEMBER~~ CABLE NUMBER 107 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 80-A-690 - COIL #'S - 47, 48, & 49

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT.			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	13/16		
1500	1500	15/16		
2500	2500	1-3/16		
3500	3500	1-3/8		
4500	4500	1 9/16		
5500	5600	1 7/8		
6500	6550	2 1/16		
LIFT-OFF	5040			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-14

1ST STAGE GROUT AT ' '

HOLE NO 35 ~~MEMBER~~ CABLE NUMBER 39A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT#. 38-A-583- COILS# 49 & 50

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 13/16		
6500		2 1/4		
LIFT-OFF	5900			
		TOTAL SHIMS USED →		1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 12-6

1ST STAGE GROUT AT ____ '

HOLE NO 36 CABLE NUMBER 146 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK . 129.3 SQUARE INCHES

HT# 80-A-690. COIL# 23

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	6.00	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891 - ROCK ANCHORS

Date 10-14.

1ST STAGE GROUT AT ____ '

HOLE NO 37 (~~MEMBER~~) CABLE NUMBER 26 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 34-L-668 - COIL #8

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS ~~RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE~~

OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 3/16		
3500		1 1/2		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF	5900			
		TOTAL SHIMS USED →		1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-27

1ST STAGE GROUT AT ____'

HOLE NO 38 / ~~MEMBER~~ CABLE NUMBER 133 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 38-A-583 - COIL #65

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	800	3/4		
1500	1500	15/16		
2500	2500	1 1/8		
3500	3500	1 3/8		
4500	4500	1 5/8		
5500	5500	1 13/16		
6500		2 1/8		
LIFT-OFF	5650			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-14

1ST STAGE GROUT AT ' "

HOLE NO 39
~~MEMBER~~ CABLE NUMBER 42-A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 83-A-714 - COIL #7

STRESS CONDITIONS FOR % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

	FIELD RECORD TON JACK			
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 9/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-14

1ST STAGE GROUT AT ____'

HOLE NO 40 ~~MEMBER~~ CABLE NUMBER 115 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT* 80-B-109- COIL* 33

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1		
2500		1¼		
3500		1⅜		
4500		1½		
5500		1⅝		
6500		2⅝		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-14

1ST STAGE GROUT AT ____'

HOLE NO 41 ~~MEMBER~~ CABLE NUMBER 17 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 81-A-679- COIL # 98

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF	5850			
		TOTAL SHIMS USED →		1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-27 1ST STAGE GROUT AT ' '

HOLE NO ~~MEMBER~~ 42 CABLE NUMBER 111 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT # 80-A-690. COIL # 50

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK.

THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	7/8		
1500	1500	1		
2500	2500	1 3/16		
3500	3500	1 3/8		
4500	4500	1 5/8		
5500	5500	1 7/8		
6500	6550	2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-14

HOLE NO 43 ~~MEMBER~~ 89 CABLE NUMBER 2 LENGTH 33-10½

1ST STAGE GROUT AT ____'

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 81-A-679 - COIL# 105

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 3/16		
2500		1 1/4		
3500		1 1/2		
4500		1 11/16		
5500		1 13/16		
6500		2 3/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7-66 1ST STAGE GROUT AT ' "

HOLE NO 44 CABLE NUMBER 41 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 81-A-679. Coil #98

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 11/16		
5500		@ 2"		
6500		2 3/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-18

1ST STAGE GROUT AT ____'

HOLE NO 45 ~~MEMBER~~ CABLE NUMBER 51A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 38-A-583 - Coil #49

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2"		
6500		2 1/4		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-27

1ST STAGE GROUT AT ____'

HOLE NO 46 ~~MEMBER~~ CABLE NUMBER 134 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-83-A-714 - Coil #12

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	13/16		
1500	1500	1		
2500	2500	1 3/16		
3500	3500	1 3/8		
4500	4500	1 5/8		
5500	5550	1 7/8		
6500	6500	2 ⅛		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-18

1ST STAGE GROUT AT 1'

HOLE NO 47 CABLE NUMBER 20 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 88-A-590- Coil #64

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD _____ TON _____ JACK			
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1"		
1500		1 3/16		
2500		1 3/8		
3500		1 5/8		
4500		1 13/16		
5500		2 1/16		
6500		2 5/16		
LIFT-OFF.	5850			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT ____'

HOLE NO 48 ~~MEMBER~~ CABLE NUMBER 158 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

NT* 39-A-553- Coils #41 & 48

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	15/16		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	5900.			
			TOTAL SHIMS USED →	1 3/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ' '

HOLE NO ~~MEMBER~~ 49 CABLE NUMBER 48 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 88-A-673 Coil #93
81-A-671 " 134

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			____ IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5200	7/8		
1500		1 1/8		
2500		1 5/8		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF. 5900				
		TOTAL SHIMS USED →	1 5/11	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-28

1ST STAGE GROUT AT ____'

HOLE NO 50 ~~MEMBER~~ CABLE NUMBER 114 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 80-B-019 - Coils 32 & 34

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 3/16		
1500	1500	1		
2500	2500	1 1/4		
3500	3500	1 7/16		
4500	4500	~~1 5/16~~ 1 3/8		
5500	5500	1 5/16		
6500	6500	2 1/4		
LIFT-OFF.	6000	1		
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ____'

HOLE NO 51 CABLE NUMBER 29 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 34-L-668- COIL # 8
88-A-590 " 66

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	550	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5 1ST STAGE GROUT AT '

HOLE NO 52 ~~MEMBER~~ CABLE NUMBER 120 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT* 38-A-583. COIL *69

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5-00	1 1/8		
1500		1 3/16		
2500		1 1/2		
3500		1 11/16		
4500		1 15/16		
5500		2 3/16		
6500		2 7/16		
LIFT-OFF.	5 800			
		TOTAL SHIMS USED →		1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 53 CABLE NUMBER 34 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT # 88-A-590 - COIL #65
88-A-673 - " 178

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500 7/16	7/16		
1500		1		
2500		1¼		
3500		1 7/16		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	1¼

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-28

1ST STAGE GROUT AT ' '

HOLE NO ~~MEMBER~~ 54 CABLE NUMBER 121 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# - 39-A-553 - Coil #37

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500	1500	1 1/16		
2500	2500	1 1/4		
3500	3500	1 1/2		
4500	4500	1 11/16		
5500	5500	1 7/8		
6500	6500	2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 1/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ____'

HOLE NO 55 CABLE NUMBER 9A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT* 78-A-650 COIL* 20

STRESS CONDITIONS FOR ____% STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 3/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF	5250			
		TOTAL SHIMS USED →		1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT ' '

HOLE NO 56 ~~MEMBER~~ CABLE NUMBER 140 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT* 83-A-714 Coil #4
80-A-690 " 25

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	650	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ____'

HOLE NO 57 CABLE NUMBER 15A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

VT# 39-A-553- COIL #43

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	510	2 5/8		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 13/16		
5500		2 1/16		
6500		2 3/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT ' '

HOLE NO 57 CABLE NUMBER 15A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39-A-553. COIL #43

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD ____ TON ____ JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	2		
1500		1 1/8		
2500		1 5/16		
3500		1 5/16		
4500		1 5/16		
5500		2 1/16		
6500		2 1/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-28

1ST STAGE GROUT AT ____'____"

HOLE NO ~~MEMBER~~ 58 CABLE NUMBER 106 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 84-A-715 COIL # 27
80-4-690 48

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			____ IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500		3/8		
1500		1		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		1 7/8		
6500		2 3/8		
LIFT-OFF	5960			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891 - ROCK ANCHORS

Date 10-11

1ST STAGE GROUT AT 1

HOLE NO ~~MEMBER~~ 59 CABLE NUMBER 52A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39A-553 - COIL # 42

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500 700	15/16		
1500	1 1/16		
2500	1 1/4		
3500	1 3/8		
4500	1 11/16		
5500	1 13/16		
6500	2 3/16		
LIFT-OFF. 5850			
		TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT 1'

~~MEMBER~~ HOLE NO 60 CABLE NUMBER 154 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 88-A-753 - COIL# 159

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1		
1500		1 3/16		
2500		1 3/8		
3500		1 5/8		
4500		1 15/16		
5500		2 1/16		
6500		2 1/8		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891 - ROCK ANCHORS

Date 10-8

1ST STAGE GROUT AT ____'

HOLE NO 61 CABLE NUMBER 1A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT. - 78-A-650 COIL #15

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1"		
2500		1 3/16		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF.	5900.			
			TOTAL SHIMS USED →	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-28

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 62 CABLE NUMBER 127 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 38-A-583- COIL #66
84-A-686 · 25

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	3/4		
1500		1		
2500		1 3/16		
3500		1 2/16		
4500		1 3/16		
5500		1 2/16		
6500		2 3/16		
LIFT-OFF	5800			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-8

1ST STAGE GROUT AT ____'____'

HOLE NO 63 ~~MEMBER~~ CABLE NUMBER 3A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 78-A-650 - COILS 15 & 20

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT 1

HOLE NO 64 ~~MEMBER~~ CABLE NUMBER 136 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 83-A-714- COILS- 4 & 12

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80LT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION	
500	6.00	15/16		
1500		1 1/8		
2500		1" 3/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2" 1/4		
LIFT-OFF.	5900			
		TOTAL SHIMS USED →	1 3/8	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-8

1ST STAGE GROUT AT ____'

HOLE NO 65 CABLE NUMBER 54A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39-A-553 - COIL #42
78-A-650 " 15

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5.00	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 3/8		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 3/16

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341.791 - ROCK ANCHORS

Date 9-28

~~HEADER~~ HOLE # 66 CABLE NUMBER 118 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R A ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 80-B-019 COIL - 34
38-A-583 " 69

STRESS CONDITIONS FOR ____ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .9 ULT			6550
LOCKOFF FORCE .7 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .9 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500	500		3/4		
1500	1500		1 7/8		
2500	2500		1 13/16		
3500	3500		1 5/8		
4500	4500		1 3/4		
5500	5500		1 7/8		
6550	6550		2 1/4		
LIFT-OFF	5850				
					TOTAL STRETCH 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

67 Date 10/8 1ST STAKE GROUT AT ____'

HOLE NO ~~MEMBER~~ [illegible] CABLE NUMBER 14-A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 83-A-714 - COIL #6

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1"		
2500		1 5/16		
3500		1 7/16		
4500		1 11/16		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT ____'

HOLE NO 68 ~~MEMBER~~ CABLE NUMBER 40 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39-A-583 - COIL 85

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	650	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 6-8

1ST STAGE GROUT AT ____'

HOLE NO 69
~~MEMBER~~ 1695 CABLE NUMBER 55-A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT # 83-A-714- Circ #5

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	9/16		
1500		15/16		
2500		1 1/8		
3500		1 5/16		
4500		1 1/2		
5500		1 3/4		
6500		2"		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 1/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 2IT341291 - ROCK ANCHORS

Date 9-28

~~HEADER~~ HOLE # 70 CABLE NUMBER 126 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.H ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 39-A-563- COIL 33
38-A-583- " 78

STRESS CONDITIONS FOR ____ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
BACKOFF FORCE .7ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500	500		13/16		
1500	1500		1		
2500	2500		1 1/4		
3500	3500		1 3/8		
4500	4500		1 11/16		
5500	5500		1 3/4		
6550	6550		2 3/16		
LIFT-OFF	5750				
					TOTAL STRETCH 1 1/4

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891 - ROCK ANCHORS

Date 10-18

HOLE NO 71 ~~MEMBER~~ CABLE NUMBER 21A LENGTH 33-10½

1ST STAGE GROUT AT ____'

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 39-A-553 - Coils 42 & 43

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		1 13/16		
6500		2 3/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT 1'

HOLE NO 72 ~~MEMBER~~ CABLE NUMBER 152 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT* 80-A-690 - COIL* 26

88-A-753 - 159

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	9/16		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		2 1/16		
6500		2 7/16		
LIFT-OFF	5800			
		TOTAL SHIMS USED →		1 5/8

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-18

HOLE NO 73 MEMBER [illegible] CABLE NUMBER 27A LENGTH 33-10½

1ST STAGE GROUT AT ____'

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-650 - COIL-18

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500 600	15/16		
1500	1 1/4		
2500	1 7/16		
3500	1 1/2		
4500	1 3/4		
5500	2"		
6500	2 1/4		
LIFT-OFF. 5900			
	TOTAL SHIMS USED →		1/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9-28

~~MEMBER~~ HOLE # 74 CABLE NUMBER 112 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.A ~~STRESSING END~~

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 - COIL # 50

80-B-019 " 33

STRESS CONDITIONS FOR ? % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8ULT			6550
BACKOFF FORCE .7ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500	500		13/16		
1500			1		
2500			1 1/16		
3500			1 3/8		
4500			1 5/8		
5500			1 15/16		
6550			2 1/16		
LIFTOFF	5950				
					TOTAL SHIM 1 1/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-6

1ST STAGE GROUT AT 1

HOLE NO ~~MEMBER~~ 75 CABLE NUMBER 19-A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT#83-A-714 : COIL #1

STRESS CONDITIONS FOR ____% STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500		1 1/8		
2500		3/8		
3500		9/16		
4500		3/4		
5500		2"		
6500		2 1/4"		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____'

HOLE NO 76 CABLE NUMBER 122 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 38-A-583 - COIL 69
31-A 553 - " 33

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	675	13/16		
1500		1"		
2500		1 1/8		
3500		1 5/16		
4500		1 5/8		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-6

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 77 CABLE NUMBER 10A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 83-A-714 - COILS 1 & 6

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5[illegible]	1"		
1500		1 1/4"		
2500		1 7/16		
3500		1 5/8		
4500		1 13/16		
5500		2 1/16		
6500		2 3/8		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALLOGRAPH
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T.341.71 - ROCK ANCHORS

Date 9-28

~~MEMBER~~ HOLE # 78 CABLE NUMBER 101 LENGTH GROUT LEVEL BELOW TOP OF ANCHOR HEAD

NUMBER OF WIRES 90 R.A ~~STRESSING END~~

RAM AREA OF 500. TON PINE JACK = 129.3 SQUARE INCHES

HT# 80-A-690 COIL 48

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8 ULT.			6550.
BACKOFF FORCE .7 ULT.			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT.			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL	DIAL READING	RAM POSITION SCALE	INCREMENT OF ELONGATION	NET ELONGATION
500	500				
1500	1500				
2500	2500		1 1/8		
3500	3500		1 3/8		
4500	4500		1 7/16		
5500	5500		1 5/8		
6550			2 1/4		
LIFTOFF	5200				
					TOTAL STRETCH 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891 - ROCK ANCHORS

Date 10-17

1ST STAGE GROUT AT ____

HOLE NO 79 CABLE NUMBER 149 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT. 84-A-715 - COIL 29

88-A 753 " 155

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	1 1/16		
1500		1 3/16		
2500		1 7/16		
3500		1 5/8		
4500		1 13/16		
5500		2 1/16		
6500		2 1/4		
LIFT-OFF	5800			
		TOTAL SHIMS USED →	1 5/8	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT ' "

HOLE NO 86 ~~MEMBER~~ CABLE NUMBER 110 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 80-A-690 - Coil 49

80-B-019. " 32

STRESS CONDITIONS FOR % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF.	6600			
		TOTAL SHIMS USED →		1 1/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7

1ST STAGE GROUT AT 1'

HOLE NO ~~MEMBER~~ 81 CABLE NUMBER 7A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 83-A-714 COILS 1 & 2

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	1		
1500		1 3/16		
2500		1 3/8		
3500		1 5/16		
4500		1 13/16		
5500		2		
6500		2 1/4		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 1/4

RYERSON

JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T34891 - ROCK ANCHORS

Date 9-28

MEMBER Hole # 82 CABLE NUMBER 109 LENGTH GROUT LEVEL BOLT TOP of ANCHOR HEAD

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT-80-A-690 Coil: 48 & 50

STRESS CONDITIONS FOR 7 STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE .8 ULT			6550
LOCKOFF FORCE .7 ULT			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ + ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) =$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	2 1/16			
1500	1500	1 15/16			
2500	2500	1 13/16			
3500	3500	1 9/16			
4500	4500	1 3/16			
5500	5500	2 1/16			
6550	6550	2 1/16			
OFF	5800				
LIFT					TOTAL SHIM 1 3/8

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-17

1ST STAGE GROUT AT 1'

HOLE NO 23 ~~MEMBER~~ CABLE NUMBER 12A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 83-A-714 COIL 2

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			____ IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 1/16		
1500		1 1/4		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 1/16		
6500		2 3/8		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891. - ROCK ANCHORS

Date 10-5

1ST STAGE GROUT AT ____'

HOLE NO 84 ~~MEMBER~~ CABLE NUMBER 148 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK # 129.3 SQUARE INCHES

HT 80-A-690 Coils 23 & 26

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	750	1 1/16		
1500		1 1/4		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 3/16		
6500		2 7/16		
LIFT-OFF	5400			
			TOTAL SHIMS USED →	1 7/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7

1ST STAGE GROUT AT ____'

HOLE NO 85 ~~MEMBER~~ CABLE NUMBER 18A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-650 - COIL 19

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. - ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	555	15/16		
1500		1 3/16		
2500		1 5/8		
3500		1 5/8		
4500		1 7/8		
5500		2 3/16		
6500		2 7/16		
LIFT-OFF	5800			
			TOTAL SHIMS USED →	1 9/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341391 · ROCK ANCHORS

Date 9-29

MEMBER HOLE # 86 CABLE NUMBER 130 LENGTH GROUT LEVEL BELOW TOP OF ANCH.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-38-A-583 - COIL 78
84-A-686 - 26

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE	5		5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL RAM POSITION READING	SCALE READING	INCREMENT OF ELONGATION	NET ELONGATION
1500	500		3/4		
1500	1500		13/16		
2500	2500		1 3/16		
3500	3500		1 1/8		
4500	4500		1 1/8		
5500	5500		1 1/8		
6550	6550		2 1/16		
LIFT-OFF	5900				
LIFT-OFF					TOTAL SLIP = 1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____ '

HOLE NO ~~MEMBER~~ 87 CABLE NUMBER 24 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT - 39-A-553- COIL 20
81-A-679- 104

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1"		
1500		1 3/16		
2500		1 5/8		
3500		1 5/8		
4500		1 13/16		
5500		2"		
6500		2 7/16		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7 1ST STAGE GROUT AT ' "

HOLE NO 88 ~~MEMBER~~ CABLE NUMBER 53A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-83-A-714 COIL 5

39-A-553 " 43

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

A FIELD RECORD TON JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 11/16		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 - ROCK ANCHORS

Date 9-29

MEMBER HOLE # 89 CABLE NUMBER 147 LENGTH GROUT LEVEL BELOW TOP OF ANCH. HD

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 84-A-715 - COIL 29

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE	5		5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION READING	INCREMENT OF ELONGATION	NET ELONGATION
1500	1500		7/8		
2500	2500		1 1/16		
3500	3500		1 1/4		
4500	4500		1 1/2		
5500	5560		1 11/16		
6550	6550		1 13/16		
LIFT-OFF	6000		2 3/16		
					TOTAL SWIM 1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____'

HOLE NO 90 ~~MEMBER~~ CABLE NUMBER 105 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT# 80-A-690- COIL 47

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	LOO	15/16		
1500		1 3/16		
2500		1 3/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 1/4"		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7 1ST STAGE GROUT AT _____

HOLE NO 91 CABLE NUMBER 11A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END _____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT-83-A-714. Coils 6&7

STRESS CONDITIONS FOR _____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	_____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	550	2/8		
1500		1 1/16		
2500		1 1/4		
3500		1 3/16		
4500		1 11/16		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 5/16

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-8-66

MEMBER Hole # 97 CABLE NUMBER #58 LENGTH _____

NUMBER OF WIRES 90 R.A STRESSING END _____

RAM AREA OF 500 TON Pine JACK = 129.3 SQUARE INCHES

HT # 38-A-583 - Coil #96

STRESS CONDITIONS FOR _____ % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
JACKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	_____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD 500 TON Pine JACK

GAUGE PRESSURE	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	11/16		
1000	15/16		
1500	1		
2500	1 3/16		
3500	1 7/16		
4500	1 11/16		
5500	1 15/16		
6550	2 1/4		
LIFT-OFF - 5675			1 3/8 SHIM

MYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4 1ST STAGE GROUT AT ____'____"

HOLE NO. ~~MEMBER~~ 93 CABLE NUMBER 143 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT^E 80-A-690 - COIL 24

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	508	15/16		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 5/8		
5500		2 1/8		
6500		2 3/8		
LIFT-OFF.	5 9/63			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7

1ST STAGE GROUT AT ____'

HOLE NO 94 ~~MEMBER~~ CABLE NUMBER 13A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT. 78-A-650 COILS - 19 & 20

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2 1/8		
6500		2 7/16		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 3/8

RYERSON GEVALOBICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T341891 · ROCK ANCHORS

Date 9-29

MEMBER Hole # 95 CABLE NUMBER 22 LENGTH Grout Level Below Top of Anch.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT-39-A-553 Coil 20

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE	5		5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	500		1		
1500	1500		1 1/16		
2500	2500		1 1/8		
3500	3500		1 3/16		
4500	4500		1 1/8		
5500	5500		2 1/16		
6550	6550		2 5/16 5/16		
LIFT-OFF	5900				
					TOTAL SHIM = 1 3/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____'

HOLE NO 96 ~~MEMBER~~ CABLE NUMBER 138 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 83-A-714 - Coil 4

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 5/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 5/16		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-17

1ST STAGE GROUT AT ____'

HOLE NO 97 ~~MEMBER~~ CABLE NUMBER 35A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 78-A-650 - COIL 17

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5.0	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 15/16		
6500		2 3/8		
LIFT-OFF.	5.9			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-29

1ST STAGE GROUT AT ' '

HOLE NO ~~MEMBER~~ 98 CABLE NUMBER 132 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 84-A-686 - Coil 26
83-A-714 " 12

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	3/8		
1500	1500	1 1/16		
2500	2500	1 1/4		
3500	3500	1 1/2		
4500	4500	1 3/4		
5500	5500	2 1/8		
6500	6550	2 1/2		
LIFT-OFF	5850			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____'

HOLE NO 99 ~~MEMBER~~ CABLE NUMBER 85A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 COIL 22

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1"		
2500		1 1/4		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4 1ST STAGE GROUT AT 1'

HOLE NO 100 CABLE NUMBER 104 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT# 84-A-715 COIL#27

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____'

~~MEMBER~~ HOLE NO 101 CABLE NUMBER 80A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 78-A-851 COILS 26&27

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2 1/16		
6500	"	2 5/16		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-29

1ST STAGE GROUT AT '

HOLE NO ~~MEMBER~~ 102 CABLE NUMBER 99 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 38-A-583- Coil 74

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80LT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500	1500	1 1/16		
2500	2500	1 1/4		
3500	3500	1 1/2		
4500	4500	1 11/16		
5500	5500	1 7/8		
6500	6550	2 1/8		
LIFT-OFF	5950			
			TOTAL SHIMS USED →	1 1/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____'

HOLE NO 103 ~~MEMBER~~ CABLE NUMBER 88A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 78-A-651 COIL #112

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 1/16		
1500		1 1/8		
2500		1 3/8		
3500		1 5/8		
4500		1 7/8		
5500		2 1/8		
6500		2 3/8		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1½

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____'

HOLE NO 104 CABLE NUMBER 156 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 88-A-753 COIL 159
39-A-553 41

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 105 CABLE NUMBER 86A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 COIL# 22 & 112

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 5/16		
LIFT-OFF.	6000			
		2. TOTAL SHIMS USED →		1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS.

Date 9-29 1ST STAGE GROUT AT 1'

HOLE NO ~~MEMBER~~ 106 CABLE NUMBER 135 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-38-A-583 COIL 65
83-A-714 " 11

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN:

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	13/16		
1500	1500	1		
2500	2500	1 1/8		
3500	3500	1 3/8		
4500	4500	1 5/8		
5500	5600	1 7/8		
6500	6550	2 1/16		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	0 & 1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ' '

HOLE NO 107 CABLE NUMBER 81A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

HT-78-A-651 COIL 26

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD _____ TON _____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON

JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____'____'

HOLE NO ~~MEMBER~~ 108 CABLE NUMBER 125 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HJ-38-A-583-Coil 66

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1 1/8		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF.	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13-66

1ST STAGE GROUT AT 1'

HOLE NO ~~MEMBER~~ 109 CABLE NUMBER 57A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 - COIL #20

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 5/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 13/16		
5500		2		
6500		2 3/8		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-29

1ST STAGE GROUT AT ____'

HOLE NO 110 ~~MEMBER~~ CABLE NUMBER 131 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-84-A-686 - COIL 25

38-A-583 - 65

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	550	2/8		
1500	1500	1 1/8		
2500	2500	1 5/16		
3500	3500	1 1/2		
4500	4500	1 11/16		
5500	5500	1 13/16		
6500	6500	2 3/16		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 111 CABLE NUMBER 36 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT- 88-A-673 COIL 178

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	575	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2"		
6500		2 5/16		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13 1ST STAGE GROUT AT ' "

HOLE NO ~~MEMBER~~ 112 CABLE NUMBER 33A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 78-A-650 COIL # 17 & 18

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD TON JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION	
500	5.00	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF.	5750			
		TOTAL SHIMS USED →		1 7/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-8-66

MEMBER Hole # 113 CABLE NUMBER #61 LENGTH

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT # 81-A-679 - COIL # 104

STRESS CONDITIONS FOR % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
LOCKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD 500 TON PINE JACK

GAUGE PRESSURE	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	1/16		
1500	15/16		
2500	1 1/16		
3500	1 3/8		
4500	1 9/16		
5500	1 11/16		
6550	2"		
LIFT-OFF 5900	2"		
		TOTAL SHIMS -	1 5/16"

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. - 21T341891 - ROCK ANCHORS

Date 9-7-66

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 113 CABLE NUMBER 61 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT #81-A-679 - Coil 104

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500		1"		
1500		1 1/8		
2500		1 7/16		
3500		1 11/16		
4500		1 15/16		
5500		2 1/8		
6500		2 1/4		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1 13/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4 1ST STAGE GROUT AT ____'

HOLE NO 114 CABLE NUMBER 153 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-88-A-753. COILS- 155 & 158

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80 ULT.			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____	IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X.

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 3/4		
4500		2"		
5500		2 1/8		
6500		2 1/4		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 1/4"

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 115 CABLE NUMBER 83A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 COILS - 22 & 23

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 3/8		
LIFT-OFF.	5750			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-29

1ST STAGE GROUT AT ____'

HOLE NO 11C ~~MEMBER~~ CABLE NUMBER 98 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT-38-A-583 - Coils - 73 & 77

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	650	7/8		
1500	1500	1		
2500	2500	1 3/16		
3500	3500	1 3/16		
4500	4500	1 3/8		
5500	5500	1 7/8		
6500	6550	2 1/16		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-13

1ST STAGE GROUT AT ____ '____"

HOLE NO 117 CABLE NUMBER 82A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 78-A-651 Coil 23

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE. (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 13/16		
5500		2 1/16		
6500		2 5/16		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 5/16

RYERSON
JOSEPH T. RYERSON & SON, INC.
METALOGICS

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-4

1ST STAGE GROUT AT 1'

HOLE NO 118 ~~MEMBER~~ CABLE NUMBER 25 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-39-A-553 Coil 21
34-L-668 " 8

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	1"		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 1/4"

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 119 CABLE NUMBER 145 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 80-A-640 - Coil 24

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	3/8		
1500	1500	1 1/16		
2500	2500	1 1/4		
3500	3600	1 1/2		
4500	4500	1 11/16		
5500	5500	1 7/8		
6500	6550	2 1/8		
LIFT-OFF	5800			
			TOTAL SHIMS USED →	1 1/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

120 Date 10-13 1ST STAGE GROUT AT ____'

HOLE NO 120 ~~MEMBER~~ CABLE NUMBER 89A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651-COIL 112

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .BOLT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	1 1/16		
1500		1 1/4		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 1/8		
6500		2 3/8		
LIFT-OFF.	5900			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT '

HOLE NO 121 CABLE NUMBER 155 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 88-A-753 - Coil 158

STRESS CONDITIONS FOR % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK				
THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		2		
6500		2 3/16		
LIFT-OFF.	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 122 CABLE NUMBER 144 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 80-A-690 - Coil 23 & 25

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500			13/16	
1500			1"	
2500			13/16	
3500			13/16	
4500			15/16	
5500			1 3/16	
6500			2 1/4	
LIFT-OFF.				
	5950		TOTAL SHIMS USED →	17/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-12

1ST STAGE GROUT AT ____'____'

HOLE NO 123 CABLE NUMBER 73A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

NT-78-A-651 Col 29

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEORETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	906	1		
1500		1 1/16		
2500		1 5/16		
3500		1 7/16		
4500		1 9/16		
5500		2		
6500		2 5/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____'

HOLE NO / ~~MEMBER~~ 124 CABLE NUMBER 150 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 Coil 26

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	9/16"		
1500		1"		
2500		1 1/4"		
3500		1 7/16"		
4500		1 5/8"		
5500		1 7/8"		
6500		2 1/8"		
LIFT-OFF.	5,800			1/4
		TOTAL SHIMS USED →		

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-18

HOLE NO 125 ~~MEMBER 43~~ CABLE NUMBER 67A LENGTH 33-10½

1ST STAGE GROUT AT ____

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

NT- 80-A-690 - COIL 20

- 78-A-651 " 29

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____	IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 5/16		
LIFT-OFF.	5200			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____' ____"

HOLE NO ~~MEMBER~~ 126 CABLE NUMBER 142 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 80-A-690 - COIL 25

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	650	7/8"		
1500		1 1/16"		
2500		1 1/4"		
3500		1 1/2"		
4500		1 3/4"		
5500		2"		
6500		2 5/16"		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date ~~10-17~~ 10-18

1ST STAGE GROUT AT ____ '____"

HOLE NO ~~MEMBER~~ 127 CABLE NUMBER 94A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 CoIC 110

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		1 13/16		
6500		2 5/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 128 CABLE NUMBER 137 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT- 83. A-714 Coil 11

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 11/16		
5500		1 15/16		
6500		2 3/16		
LIFT-OFF.	5800			
			TOTAL SHIMS USED →	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-18 — 1ST STAGE GROUT AT ____'

HOLE NO 129 (~~MEMBER~~) — CABLE NUMBER 91A — LENGTH 33-10½

NUMBER OF WIRES 90 — STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651- Coils 110 & 111

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1"		
1500		1 3/16		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 3/16		
6500		2 5/8		
LIFT-OFF	5650			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'____'

HOLE NO 136 ~~MEMBER~~ CABLE NUMBER 159 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT. 39-A-553 - Coils 40 & 49

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-8

1ST STAGE GROUT AT ____' ____"

HOLE NO ~~MEMBER~~ 131 CABLE NUMBER 90A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT-78-A-651 COIL 111

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		2 1/16		
6500		2 5/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ' "

HOLE NO 132 ~~MEMBER~~ CABLE NUMBER 108 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 Coil 49

STRESS CONDITIONS FOR % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD _____ TON _____ JACK			
THEOR. - ETICAL GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/16		
1500		1"		
2500		1 3/16		
3500		1 7/16		
4500		1 11/16		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALCOICO
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-8-

1ST STAGE GROUT AT ____

HOLE NO ~~MEMBER~~ 133 CABLE NUMBER 47A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-650 Coil 17
80-A-690 " 22

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF 15/16 AND FINAL GAUGE PRESSURE OF 2 3/8 - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = 0.9154$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5 5.0	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 13/16		
5500		2 1/16		
6500		2 3/8		
LIFT-OFF	5 9.0			
		TOTAL SHIMS USED →	1 5/16	

RYERSON
JOSEPH T. RYERSON & SON, INC.
METALOGICS

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'

HOLE NO 134 CABLE NUMBER 124 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT 39-A-553 - COIL 33

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5??	1"		
1500		1 1/4		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 1/16		
6500		2 5/16		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 1/4.

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-8

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 135 CABLE NUMBER 50A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 COILS 20 & 22

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	1 7/16		
1500		1" 3/16		
2500		1 7/16		
3500		1 11/16		
4500		2"		
5500		2 5/16		
6500		2 11/16		
LIFT-OFF	5850			
		TOTAL SHIMS USED →		1 3/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 136 CABLE NUMBER 23 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-39-A-553 Coils - 21 & 25

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7

1ST STAKE GROUT AT ____

HOLE NO ~~MEMBER~~ 137 CABLE NUMBER 49A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 Coil 22

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	15/16		
1500		1 3/16		
2500		1 3/8		
3500		1 3/8		
4500		1 7/8		
5500		2 1/8		
6500		2 5/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/8

RYERSON
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'

HOLE NO 138 ~~MEMBER~~ CABLE NUMBER 119 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 38-A-583 - COIL 70
39-A-553 " 37

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	650	15/16		
1500		1 1/16		
2500		1 5/16		
3500		1 1/2		
4500		1 3/4		
5500		1 15/16		
6500		2 1/4		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3 1ST STAGE GROUT AT ____'

HOLE NO 139 ~~MEMBER~~ CABLE NUMBER 128 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT 38-A-583- COIL 78

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	9/16		
1500		1"		
2500		1 3/16		
3500		1 3/8		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1 9/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10 7

1ST STAGE GROUT AT ' '

HOLE NO ~~NUMBER~~ 140 CABLE NUMBER 76A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 - CIL #8

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	6 7/8		
1500		1 1/8		
2500		1 3/8		
3500		1 9/16		
4500		1 3/4		
5500		2"		
6500		2 1/4"		
LIFT-OFF	6000			
			TOTAL SHIMS USED →	1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 7-30

1ST STAGE GROUT AT ____ '

HOLE NO 141 CABLE NUMBER 139 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-83-A-714 - Coils - 3 & 11

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	75 6	7/8		
1500		1"		
2500		1 1/4		
3500		1 5/16		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	6003			
			TOTAL SHIMS USED →	1 3/16

KYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____ '____"

HOLE NO 142 ~~MEMBER~~ CABLE NUMBER 141 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-83-A-714 COIL 3

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1"		
1500		1 1/4		
2500		1 7/16		
3500		1 5/8		
4500		1 7/8		
5500		2 1/8		
6500		2 7/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891 - ROCK ANCHORS

Date 10-7

1ST STAGE GROUT AT 1 "

HOLE NO 143 ~~MEMBER~~ CABLE NUMBER 74A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651 - Coils 28 & 29

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1 3/16		
1500		1 3/16		
2500		1 7/16		
3500		1 11/16		
4500		1 7/8		
5500		2 1/8		
6500		2 7/16		
LIFT-OFF	5700			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____'

HOLE NO 144 ~~MEMBER~~ CABLE NUMBER 113 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

HT-80-B-019- Coil 32

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500		1 1/8		
2500		1 3/8		
3500		1 1/2		
4500		1 3/16		
5500		1 7/8		
6500		2 5/16		
LIFT-OFF	5950			
			TOTAL SHIMS USED →	1¼

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____'

HOLE NO 145 ~~MEMBER~~ CABLE NUMBER 123 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK = 129.3 SQUARE INCHES

NT-39-A-553 Coil 37

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. ETICAL GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500 -	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 13/16		
5500		2"		
6500		2 1/4"		
LIFT-OFF	5850			
			TOTAL SHIMS USED →	1 1/2

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

HOLE NO 146 Date 10-7 1ST STAGE GROUT AT ' "

~~MEMBER~~ CABLE NUMBER 78A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-78-A-651-C016 27

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	5.00	13/16		
1500		1 1/8		
2500		1 3/8		
3500		1 5/8		
4500		1 13/16		
5500		2 1/16		
6500		2 3/16		
LIFT-OFF	5800			
		TOTAL SHIMS USED →		3/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 9-30

1ST STAGE GROUT AT ____ '____"

HOLE NO 147 ~~NEMBER~~ CABLE NUMBER 79 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-A-690 COIL 71

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	7/8		
1500		1"		
2500		1 3/16		
3500		1 7/16		
4500		1 5/8		
5500		1 3/4		
6500		2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1-¼

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP - 21T341891 - ROCK ANCHORS

Date 10-3

1ST STAGE GROUT AT ____

HOLE NO 148 ~~MEMBER~~ CABLE NUMBER 103 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

38-A-583 COIL 73

HT 80-A-690 47

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ - ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	13/11		
1500		1"		
2500		1 3/16		
3500		1 7/16		
4500		1 3/8		
5500		1 7/8		
6500		2 1/4		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 5/8

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-7-86

1ST STAGE GROUT AT ____'

HOLE NO 149 ~~MEMBER~~ CABLE NUMBER 30A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

NT-39-A-553 - Coils 38 & 39

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 5/16		
3500		1 9/16		
4500		1 13/16		
5500		2 1/16		
6500		2 3/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/8

3

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date [illegible] DEC 10-1

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 150 CABLE NUMBER 117 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-38-A-583 - COIL 70

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80CT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	15/16		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF	5850			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-17

1ST STAGE GROUT AT ____'____"

HOLE NO 151 CABLE NUMBER 37A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-39-A-553 COIL 38

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	1"		
1500		1 3/16		
2500		1 3/8		
3500		1 5/8		
4500		1 13/16		
5500		2 1/16		
6500		2 3/8		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1-1/2

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 12-3

1ST STAGE GROUT AT ____ '

HOLE NO 152 ~~MEMBER~~ CABLE NUMBER 116 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-80-B-019 Coil 34

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80 ULT.			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	3/4		
1500		1"		
2500		1 3/16		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 1/8		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON
JOSEPH T. RYERSON & SON, INC.
METALOGICS

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1-63

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 153 CABLE NUMBER 97 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK 129.3 SQUARE INCHES

38-A-583 - Coil 74.

HT-88-A-673 · # 185

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	800	15/16		
1500		1 1/8		
2500		1 5/16		
3500		1 9/16		
4500		1 7/8		
5500		2 3/16		
6500		2 1/2		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 7/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1 1ST STAGE GROUT AT '

HOLE NO ~~MEMBER~~ 154 CABLE NUMBER 151 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-88-A-753-Coil 155

STRESS CONDITIONS FOR % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 WT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .80LT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \_\_\_\_\_$$

FIELD RECORD _____ TON _____ JACK				
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	600	15/16		
1500	1500	1 1/4		
2500	2500	1 1/4		
3500	3500	1 1/2		
4500	4500	1 3/4		
5500	5500	2"		
6500	6550	2 3/16		
LIFT-OFF	5900			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1-66

1ST STAGE GROUT AT ____ '____"

HOLE NO 155 ~~MEMBER~~ CABLE NUMBER 38A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

NT-39-A-553 Coil 39

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE

OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE ACTUAL		RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 1/2		
4500		1 13/16		
5500		2 1/8		
6500		2 1/2		
LIFT-OFF	LOST			
			TOTAL SHIMS USED →	1 1/2

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1

1ST STAGE GROUT AT ' "

HOLE NO / ~~MEMBER~~ 156 CABLE NUMBER 160 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-39-A-553 Coil 48

STRESS CONDITIONS FOR ____ % STRESSING	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING			IN.

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

FIELD RECORD ____ TON ____ JACK

THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	700	15/16		
1500		1 1/8		
2500		1 1/4		
3500		1 1/2		
4500		1 3/4		
5500		2"		
6500		2 1/4		
LIFT-OFF	5800			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1-66

1ST STAGE GROUT AT ____'____"

HOLE NO 157 CABLE NUMBER 32 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-88-A-590 Coil 67
88-A-623 " 74

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	7/8		
1500		1 1/16		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		2"		
6500		2 1/8		
LIFT-OFF	5960			
			TOTAL SHIMS USED →	1 5/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 158 CABLE NUMBER 157 LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-88-A-753 Coil 158
39-A-553 49

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING	____ IN.		

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

	FIELD RECORD ____ TON ____ JACK			
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	900	15/16		
1500		1"		
2500		1 1/4		
3500		1 7/16		
4500		1 11/16		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 1/4

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP. 21T341891. ROCK ANCHORS

Date 10-1-66

1ST STAGE GROUT AT ____'

HOLE NO ~~MEMBER~~ 159 CABLE NUMBER 31A LENGTH 33-10½

NUMBER OF WIRES 90 STRESSING END ____

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT-39-A-553 - Coil 39

38-A-583. " 50

STRESS CONDITIONS FOR ____ % STRESSING			
	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
BACKOFF FORCE .7 ULT.			5740
MAXIMUM ALLOWABLE OVERSTRESSING FORCE .8 ULT			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		____ IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF ____ AND FINAL GAUGE PRESSURE OF ____ = ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{____}$$

FIELD RECORD ____ TON ____ JACK -				
THEOR. GAUGE PRESSURE	ACTUAL	RAM POSITION	INCREMENT OF ELONGATION	NET ELONGATION
500	500	3/4		
1500		1		
2500		1 3/16		
3500		1 7/16		
4500		1 5/8		
5500		1 7/8		
6500		2 3/16		
LIFT-OFF	5750			
			TOTAL SHIMS USED →	1 3/16

RYERSON METALOGICS
JOSEPH T. RYERSON & SON, INC.

POST-TENSIONING FIELD RECORD

BECHTEL CORP 21T-41-31 · ROCK ANCHOR

Date 9/8

MEMBER Hole # 160 CABLE NUMBER 59 LENGTH GROUT LEVEL BELOW TOP OF ANCH.

NUMBER OF WIRES 90 R.A STRESSING END

RAM AREA OF 500 TON PINE JACK - 129.3 SQUARE INCHES

HT. # 81-A-679 - GAUGES 103 & 106

STRESS CONDITIONS FOR % STRESSING

	FORCE KIPS	STRESS KSI	GAUGE PRESSURE PSI
INITIAL PRESTRESSING FORCE			
COMPUTED OVERSTRESSING FORCE			6550
LOCKOFF FORCE			5750
MAXIMUM ALLOWABLE OVERSTRESSING FORCE			6550
COMPUTED ELONGATION WHILE OVERSTRESSING		IN.	

ELONGATION WHILE OVERSTRESSING MEASURED AS RAM TRAVEL BETWEEN STARTING GAUGE PRESSURE OF _____ AND FINAL GAUGE PRESSURE OF _____ • ACTUAL ELONGATION X

$$\left(\frac{\text{FINAL PRESSURE (GAUGE)} - \text{STARTING PRESSURE (GAUGE)}}{\text{FINAL PRESSURE (GAUGE)}}\right) = \text{_____}$$

FIELD RECORD 500 TON PINE JACK

THEORETICAL GAUGE PRESSURE	ACTUAL GAUGE PRESSURE	DIAL READING	RAM POSITION Scale Reading	INCREMENT OF ELONGATION	NET ELONGATION
500	500		3/4		
1500	1500		1		
2500	2500		1 3/16		
3500	3500		1 7/16		
4500	4500		1 9/16		
5500	5500		1 11/16		
6550	6550		2 3/16		
LIFT-OFF	6000				
					TOTAL SLIPPAGE - 1 3/16