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809-8/9 Driller's Rept. Summary

809-8		Footage	Client	Explanation
Date	in shift	Footage	Hours	
9-21-87	—	—	—	8 hrs (no charge) replacing transmission + overhaul
9-22 D	25	25	2	Moving + setup
N	45	70		
9-23 D	50	120		
N	35	155		
9-24 D	10	165		4 hrs. (no charge) equipment repair (transmission)
N	—	—		10 hrs (" ") transmission work
9-25 D	5	170		5 hrs (" ") drill repair (transmission + hydr. pump)
N	7*	184	1	Plus 7' void (177'-184') ; 1 hr pulling rods for cas.
9-28 D	2	186	4	4 hrs. (no charge) working on chuck ; 4 hr. placing cas.
N	15	201		
9-29 D	14	215		
N	17	232		
9-30 D	3	235	2	Removing casing.

11 shifts drilling, 235 ft, and 9 hrs. chargeable.
 or 21.4 ft/shift

Used: 5 x 5 gal drums of EZ mud
 2 NQ bits, 1 NQ reamer shell,
 1 NQ casing shoe, 2 BQ bits, 1 BQ ream

809-9

9-30 D	8	8	5	Moving, hole to hole
N	65	73		2 hr (no charge) working on hydraulic hose
10-1 D	10	83		
N	5	88		
10-2 D	10	98		
N	15	113		
10-5 D	35	148		
N	25	173		
10-6 D	14	187		

Commenced move to 950 land / 902 P.D.S.

9 shifts drilling 187 feet, and 5 hrs chargeable.
 or 20.8 ft/shift

Used: 3 x 5 gal. drums EZ mud
 4 NQ bits

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budg U. G Date: 9 30 19 87 Drill SKID 34 IR7041
 Location: JEROME A2 Foreman's Signature: Red Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-8-33		diorite	R9	232	235			3	3		
	809-9-5		diorite	Ngwl	0	5			8	3		
Aft B	809-9-5		diorite	Ngwl	8	73			65	65		
Nite C												

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Description	Product Name	Size	Number of Units
Core Drilling	3	10		Portland			
Handling Rod (change bit)				Lumnite			
Overburden - rock bit				Calseal			
Collaring Hole - Dia. bit				Mud	50#		
Rotary Drilling				Mud	100#		
Handling Rod (bit)				Other (Describe)			
Rock Bit - Overburden							
Reaming (to)							
Casing - Placing							
- Pulling	(2)						
Delays - Client Acct.							
Cementing - Handling Rods							
- Prep Hole & Grout							
- Setting							
- Drilling							
Moving - Hole to Hole	(5)						
Rigging Up - Rigging Down							
Mix Mud							
Condition Hole, Lost Circulation							
Surveying, Inclination Test							
Mobilization/Demobilization							
Other (Explain)							
Total Hours	10	10					
Driller's Initials	B. Hansen	D.S.					

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	DISAGER	10	R. SCHONW	10		
C						

Remarks: pulled rods pulled casing moved R. 9' (H)

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: RIDGE U.G. Date: 10 1 19 87 Drill SK'D 34 IR 704 1
 Location: JEROME A2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-9-5		DIORITE	NGW1	73	77			4	4		
	809-9-5		CHERT	NG	77	83			6	6		
Aft B	809-9-1			NG	87	88			5	5		
Nite C												

Hourly Distribution				Supplies Consumed						
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	
Core Drilling	8	10		Portland						
Handling Rod (change bit)				Lumnite						
Overburden - rock bit				Calseal						
Collaring Hole - Dia. bit				Mud	50#					
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)		EZ Mud	1			
WORK. W.C. ON HOLE 11/2	2									
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
- Pulling										
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout										
- Setting										
- Drilling										
Moving - Hole to Hole										
Rigging Up - Rigging Down										
Mix Mud										
Condition Hole, Lost Circulation										
Surveying, Inclination Test										
Mobilization/Demobilization										
Other (Explain)										
Total Hours	10	10								
Driller's Initials	BH	D.S.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEVE	10		
B	W JAGER	10	N SCHOON	10		
C						

Remarks: HYD. HOSE BROKE HAD TO REPAIR IT

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

809 → 902 DDS Move + 902-1 Driller's Rept. Summary

Move	Date	Footage in shift	Σ Footage	Client hours	+	Explanation
	10-6 Day			3		Commenced tear-down of rig + station
	Nite			8		Moving to 950 level via 806, Edith, 901
	10-7 D			8		Moving
	N			8		Moving
	18-8 D			8		Setting up platform, etc on 902 D.D.S.
	N			8		Setting up
	10-9 D			—		Completion of set-up.

Total 43 hours charged to move 800-950 levels, 809 D.D.S. to 902 D.D.S. (including help from mining crews for haulage + shaft transfer)

902-1

10-9 D	15	15	2	Set-up + alignment on first 902-hole
N	30	45		
10-12 D	25	70		
N	10	80		1 hr. repairing chuck, no charge
10-13 D	15	95		
N	25	120		
10-14 D	14	134	1	"Conditioning hole"
N	10	144		
10-15 D	10	154		
N	7	161		
10-16 D	10	171		
N	9	180	1	Extra hour for off-shift hoist delay
10-19 D	15	*195	3	* 188-195 = Void (no footage charge)
N	18	213	1	Hourly for casing across 7' void
10-20 D	5	218	1	Delay for powder smoke to clear (blasting)
N	11	229		
10-21 D	1	230	2	Ended hole at 230 at stage; 2 hr. pulling casing

17 shifts drilling, 230 feet, and 11 hours charged. or 13.5 feet/shift

- Used:
- 12 EZ mud (5-gal each)
 - 5 NQ bits
 - 1 NQ reamer shell
 - 3 BR bits.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 8 19 87 Drill SK. 134 IR 7041

Location: JEROME H 2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A												
Aft B												
Nite C												

Hourly Distribution				Supplies Consumed						
Day	Aft.	Nite		Description	Size	Product Name	Day	Aft.	Nite	
				Number of Units						
Core Drilling				Portland						
Handling Rod (change bit)				Lumnite						
Overburden - rock bit				Calseal						
Collaring Hole - Dia. bit				Mud	50#					
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)						
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
- Pulling										
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout				Water hauling	miles		loads			
- Setting				Core boxes:	size/		no.			
- Drilling				Length of waterline:						
Moving - Hole to Hole	8	8		Lost tools: Description						
Rigging Up - Rigging Down										
Mix Mud				Lost bits: Size		Serial no.				
Condition Hole, Lost Circulation				Depth:		ft. Hole #				
Surveying, Inclination Test				Casing lost or left in hole: Size		ft.				
Mobilization/Demobilization				for Client		Hole #				
Other (Explain)				Longco		Hole #				
				Bit changes: Size		Serial #	Depth			
				(Include						
				first bit						
				in hole)						
Total Hours	8	4								
Driller's Initials	BH.	D.S.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	8	R REEDY	8		
B	D. SAGER	4	K SCHAON	8		
C						

Remarks: SAFETY MEETING Topic: COMPRESSED AIR LINES

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 9 1987 Drill SKID 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Per Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-1440		DIONITE	NQW	0	15			15	10		
Aft B	102-1			NQ	15	45			30	30		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	6	8							
Handling Rod (change bit)				Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)		E2 Mud		1	
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles			loads
- Setting				Core boxes:		size/			no.
- Drilling				Length of waterline:					
Moving - Hole to Hole	(2)			Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes: Size		Serial #			Depth
				(Include					
				first bit					
				in hole)					
Total Hours	8	8							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	8	R REEDY	8		
B	D SAGER	8	R SAGER	8		
C						

Remarks: 8 hr. SAFETY TRAINING FOR R SCHOOL IN PHOENIX.

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: BUDGE 11 G Date: 10 12 19 87 Drill SKID 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Ben Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	902-1440		DIOMITE	NGWI	45	65			20	16		
	902-1440		CHEAT	NGWI	65	70			5	5		
Aft B	902-1440		CHEAT	NGWI	70	80			10	10		
Nite C												

Hourly Distribution	Day	Aft.	Nite
Core Drilling	10	8	
Handling Rod (change bit)		1	
Overburden - rock bit			
Collaring Hole - Dia. bit			
Rotary Drilling			
Handling Rod (bit)			
Rock Bit - Overburden			
Reaming (to)			
Casing - Placing			
- Pulling			
Delays - Client Acct.			
Cementing - Handling Rods			
- Prep Hole & Grout			
- Setting			
- Drilling			
Moving - Hole to Hole			
Rigging Up - Rigging Down			
Mix Mud			
Condition Hole, Lost Circulation			
Surveying, Inclination Test			
Mobilization/Demobilization			
Other (Explain)			
<i>rotation change</i>		1	
Total Hours	10	10	
Driller's Initials	BH	D.S.	

Supplies Consumed			Day	Aft.	Nite
Description	Size	Product Name	Number of Units		
Portland					
Lumnite					
Calseal					
Mud	50#				
Mud	100#				
Other (Describe)		<i>E 2 Mud</i>	1	1	
OTHER					
Water hauling	miles				
Core boxes:	size/				
Length of waterline:					
Lost tools: Description					
Lost bits: Size		Serial no.			
Depth:		ft. Hole #			
Casing lost or left in hole: Size		ft.			
for Client		Hole #			
Longco		Hole #			
Bit changes: (Include first bit in hole)	Size	Serial #	Depth		
	<i>NG</i>	<i>17269</i>	<i>73</i>		

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<i>B HANSEN</i>	10	<i>R REEDY</i>	10		
B	<i>D. PARKER</i>	10	<i>R. SCHOOB</i>	10		
C						

Remarks: CHANGE BIT. SAFETY MATING TOPS SELF RESCUER
[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G. Date: 10 14 19 87 Drill SKID 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Reid Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-1+70		CHERT	Ngwl	120	134			14	14		
Aft B	702-1		CHERT	Ngwl	134	144			10	10		
Nite C												

Hourly Distribution	Day	Aft.	Nite
Core Drilling	8	10	
Handling Rod (change bit)	1		
Overburden - rock bit			
Collaring Hole - Dia. bit			
Rotary Drilling			
Handling Rod (bit)			
Rock Bit - Overburden			
Reaming (to)			
Casing - Placing			
- Pulling			
Delays - Client Acct.			
Cementing - Handling Rods			
- Prep Hole & Grout			
- Setting			
- Drilling			
Moving - Hole to Hole			
Rigging Up - Rigging Down			
Mix Mud			
Condition Hole, Lost Circulation	①		
Surveying, Inclination Test			
Mobilization/Demobilization			
Other (Explain)			
Total Hours	10	10	
Driller's Initials	BH	DS	

Supplies Consumed			Day	Aft.	Nite
Description	Size	Product Name	Number of Units		
Portland					
Lumnite					
Calseal					
Mud	50#	EZ		1	
Mud	100#				
Other (Describe)					
OTHER					
Water hauling		miles			loads
Core boxes:		size/			no.
Length of waterline:					
Lost tools: Description					
Lost bits: Size		Serial no.			
Depth:		ft. Hole #			
Casing lost or left in hole: Size		ft.			
for Client		Hole #			
Longco		Hole #			
Bit changes: (Include first bit in hole)	Size	Serial #	Depth		
	Ngwl	L17267	126		

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D. JAEGER	10	R. SCHONN	10		
C						

Remarks: HAL TO REAM OUT 60' HAL TO REAM BACK IN 60'
hole casing (PH) SAFETY MEETING HAND TOOLS
Tom White

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G Date: 10 16 19 87 Drill SKID 34 1R 7041
 Location: JEROME A2 Foreman's Signature: Ben Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-1-40		CHERT	N941	161	171			10	10		
Aft B	902-1		CHERT	N94	171	180			9	9		
Nite C												

Hourly Distribution	Day	Aft.	Nite
Core Drilling	8	7	
Handling Rod (change bit)		1	
Overburden - rock bit			
Collaring Hole - Dia. bit			
Rotary Drilling			
Handling Rod (bit)			
Rock Bit - Overburden			
Reaming (to)			
Casing - Placing			
- Pulling			
Delays - Client Acct.			
<u>HOIST DELAY</u>		①	
Cementing - Handling Rods			
- Prep Hole & Grout			
- Setting			
- Drilling			
Moving - Hole to Hole			
Rigging Up - Rigging Down			
Mix Mud			
Condition Hole, Lost Circulation			
Surveying, Inclination Test			
Mobilization/Demobilization			
Other (Explain)			
Total Hours	8	9	
Driller's Initials	BPH	D.S.	

Supplies Consumed		Day	Aft.	Nite
Description	Size	Number of Units		
Portland				
Lumnite				
Calseal				
Mud	50#			
Mud	100#			
Other (Describe)				
	<u>EZ MUD</u>		1	
OTHER				
Water hauling	miles			
Core boxes:	size/			
Length of waterline:				
Lost tools: Description				
Lost bits: Size	Serial no.			
Depth:	ft. Hole #			
Casing lost or left in hole: Size	ft.			
for Client	Hole #			
Longco	Hole #			
Bit changes:	Size	Serial #	Depth	
(Include first bit in hole)	<u>N9</u>	<u>L17206</u>	<u>177</u>	

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>B HANSEN</u>	8	<u>R REEDY</u>	8		
B	<u>D SAGER</u>	9	<u>R SCHOON</u>	9		
C						

Remarks: SARVA MEETING END EAR PROTECTION. HOIST BROKE DOWN AT END OF SHIFT COULDN'T GET TO SURFACE (D.S.)

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 19 87 Drill SKILL 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	702-1 + 40		CEMENT VOID	NGWT	180	188			8	8		
					188	195			7	7		
Aft B	702-1 + 40			BGWT	195	213			18	18		
Nite C												

Hourly Distribution	Day	Aft.	Nite
Core Drilling	7	9	
Handling Rod (change bit)			
Overburden - rock bit			
Collaring Hole - Dia. bit			
Rotary Drilling			
Handling Rod (bit)			
Rock Bit - Overburden			
Reaming (to)			
Casing - Placing	③	①	
- Pulling			
Delays - Client Acct.			
Cementing - Handling Rods			
- Prep Hole & Grout			
- Setting			
- Drilling			
Moving - Hole to Hole			
Rigging Up - Rigging Down			
Mix Mud			
Condition Hole, Lost Circulation			
Surveying, Inclination Test			
Mobilization/Demobilization			
Other (Explain)			
Total Hours	10	10	
Driller's Initials	BH	D.G.	

Supplies Consumed		Day	Aft.	Nite
Description	Product Size Name	Number of Units		
Portland				
Lumnite				
Calseal				
Mud	50#			
Mud	100#			
Other (Describe)	E2 MUD	1	1	
OTHER				
Water hauling	miles			
Core boxes:	size/ no.			
Length of waterline:				
Lost tools: Description				
Lost bits: Size	Serial no.			
Depth:	ft. Hole #			
Casing lost or left in hole: Size	ft.			
for Client	Hole #			
Longco	Hole #			
Bit changes: (Include first bit in hole)	Size Serial # Depth			
	BQ L1522 195			

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D. SAGER	10	B SCHOON	10		
C						

Remarks: HIT VOID AT 188' PUSHED ROD 7' TO OTHER SIDE
PULLED RODS & CAVED HOLE (134')

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 21 1987 Drill SKID 34/R7041
 Location: JEMOME #2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-1740		CHERT	Bowl	229	230			1	1		
Aft B	902-2744		DIONITE	Howl	0	20			20	18		
Nite C												

Hourly Distribution			Supplies Consumed				
Day	Aft.	Nite	Description	Product	Day	Aft.	Nite
2	14		Core Drilling				
			Handling Rod (change bit)				
			Overburden - rock bit				
			Collaring Hole - Dia. bit				
			Rotary Drilling				
			Handling Rod (bit)				
			Rock Bit - Overburden				
			Reaming (to)				
			Casing - Placing				
			- Pulling				
			Delays - Client Acct.				
			Cementing - Handling Rods				
			Prep Hole & Grout				
			Setting				
			Drilling				
			Moving - Hole to Hole				
			Rigging Up/Rigging Down				
			Mix Mud				
			Condition Hole, Lost Circulation				
			Surveying, Inclination Test				
			Mobilization/Demobilization				
			Other (Explain)				
			Total Hours				
			Driller's Initials				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D. SAGER	10	R. SCHON	10		
C						

Remarks: Drilled Rods pulled & moved into waste
SAFELY
 [Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

CLIENT

902-2/3 Driller's Rept Summaries

Date	Footage in shift	Σ Footage	Client hours	+	Explanation
10-21 - Day	—	—	6		Moving from 902-1 to 902-2 + lining/casing.
10-21 - Nite	20	20			
10-22 D	24	44			
N	11	55			
10-23 D	5	60	1		"Conditioning hole"
N	7	67			
10-26 D	7	74	2		" "
N	11	85	1		" "
10-27 D	30	115			
N	9	124	8		Casing down from HQ to NQ w/ casing difficulties
10-28 D	31	155			
N	17	172			
10-29 D	16	188			
N	5	193 (EQA)			
10-30 D	—	—	2		Pulling casing

Used: 5 EZ mud
5 HQ bits + 1 HQ reamer shell
5 NQ bits + 2 NQ reamer shells

193 feet and 20 hours charged over 14 shifts
or 13.8 ft/shift

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 21 1987 Drill SK. & 34/R704/1
 Location: JEROME #2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-1140	40	CHERT	Bowl	229	230			1	1		
Aft B	902-214		DIONITE	Howl	0	20			20	18		
Nite C												

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Product	Day	Aft.	Nite
Core Drilling	2	14		Description	Number of Units		
Handling Rod (change bit)				Portland			
Overburden - rock bit				Lumnite			
Collaring Hole - Dia. bit				Calseal			
Rotary Drilling				Mud 50#			
Handling Rod (bit)				Mud 100#			
Rock Bit - Overburden				Other (Describe)			
Reaming (to)				OTHER			
Casing - Placing				Water hauling miles			
- Pulling	2			Core boxes: size/ no.			
Delays - Client Acct.				Length of waterline:			
Cementing - Handling Rods				Lost tools: Description			
Prep Hole & Grout				Lost bits: Size: Serial no:			
Setting				Depth: ft. Hole #			
Drilling				Casing lost or left in hole: Size ft.			
Moving - Hole to Hole	6			for Client Hole #			
Rigging Up - Rigging Down				Longco Hole #			
Mix Mud				Bit changes: Size Serial # Depth			
Condition Hole, Lost Circulation				(Include			
Surveying, Inclination Test				first bit			
Mobilization/Demobilization				in hole)			
Other (Explain)							
Total Hours	10	10					
Driller's Initials	BH	D.G.					

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAFER	10	R. SCHON	10		
C						

Remarks: Drilled Rods pulled 2 hrs. & moved drill 15'
SAFER in

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 22 19 87 Drill SK. L 34 IR 704 /
 Location: JEROME A2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling	Reaming	Drilled or Reamed	Core Re-covered	Size	Footage		
Day A	902-2414		DIORITE	H9W1	20	39			19	17		
	902-2414		DIORITE		39	44			5	5		
Aft B	902-2414			H9W1	44	55						
Nite C												

Hourly Distribution			Supplies Consumed		
Day	Aft.	Nite	Product Name	Size	Number of Units
10	7		Portland Cement		
	1		Lumnite		
			Calseal		
			Mud	50#	
			Mud	100#	
			Other (Describe)		
			OTHER		
			Water hauling	miles	loads
			Core boxes	size	no.
			Length of waterline		
			Lost tools: Description		
			Lost bits: Size	Serial no.	
			Depth	ft. Hole #	
			Casing lost or left in hole: Size	ft.	
			for Client	Hole #	
			Longco	Hole #	
			Bit changes: Size	Serial #	Depth
			(Include first bit in hole)	H.Q. L14025	47
			Total Hours	10	10
			Driller's Initials	B.H.	D.S.

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D SAGER	10	R SCHAAD	10		
C						

Remarks: [Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 23 87 Drill SKID 34 IR 7041
 Location: JENOME A2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	902-214		CHERT	Hgw1	55	60			5	3		
Aft B	902-2		CHERT	H-U	60	67			7	7		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Handling Rod (change bit)	1	7		Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)					
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	8	5							
Driller's Initials	B.H.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	8	R. REEDY	8		
B	D. GAGER	8	R. SCHOON	8		
C						

Remarks: HOLE HARD BROKEN & CAVING PULLED RODS 1- on
9000 FT THEN PULLED FOR BIT, BY
HOLE CAVING PULLED RODS FOR 1 H- WORKING D.S.
SAFETY MEETING ROPES, CHAINS & SLINGS

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 26 1983 Drill SK. & 34 IR 7041
 MONTH DAY TYPE DRILL NO. TRUCK NO.

Location: JEROME A2 Foreman's Signature: Bob Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-2-14		CHERT	Hgw1	67	74			7	7		
Aft B	902-2			HQ	74	85			11	11		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Handling Rod (change bit)	8	8		Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)		EZ Mud	1	1	
Reaming (to 7 1/2)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles _____ loads			
- Setting				Core boxes:		size/ _____ no.			
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down				Lost bits: Size _____ Serial no. _____					
Mix Mud				Depth: _____ ft. Hole # _____					
Condition Hole, Lost Circulation	②	①		Casing lost or left in hole: Size _____ ft.					
Surveying, Inclination Test				for Client _____ Hole # _____					
Mobilization/Demobilization				Longco _____ Hole # _____					
Other (Explain)				Bit changes: Size _____ Serial # _____ Depth _____					
				(Include first bit in hole) Hgw1 L17384 67					
				HQ L1049778					
Total Hours	10	10							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D. SAGER	10	R SCHOOL	10		
C						

Remarks: HOLE CHANGING COULDN'T GET TO BOTTOM (BA)
REMAINING back to BOTTOM (D.S.)
SAFELY pulling DRESSING Light FOR SAFELY

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 27 1987 Drill SKid 34 IR 7041
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME H 2 Foreman's Signature: Ben Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	902-2-14		CHEMT Diorite	Hgw1	85	107			22	22		
					107	115			8	8		
Aft B	902-2		Diorite Diorite	H12 NQ	115	120			5	5		
					120	124			4	4		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Handling Rod (change bit)				Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)					
Reaming (to)									
Casing - Placing		8							
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling	miles				
- Setting				Core boxes:	size/				
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down				Lost bits: Size	Serial no.				
Mix Mud				Depth:	ft. Hole #				
Condition Hole, Lost Circulation				Casing lost or left in hole: Size	ft.				
Surveying, Inclination Test				for Client	Hole #				
Mobilization/Demobilization				Longco	Hole #				
Other (Explain)				Bit changes:	Size	Serial #	Depth		
				(Include	NQ	L19432	120		
				first bit					
				in hole)					
Total Hours	10	10							
Driller's Initials	BH	D9							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D. SAFER	10	R SCHOOL	10		
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG Date: 10 28 1987 Drill SK. 2 34 1R 7041
 MONTH DAY TYPE DRILL NO. TRUCK NO.

Location: JEROME AZ Foreman's Signature: Robert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
Day A	902-2414	14	DIORITE	Ngwl	124	155			31	31		
Aft B	902-2		CHERT	NQ	155	172			17	5		
Nite C												

Hourly Distribution			Supplies Consumed					
Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
10	8		Portland Cement					
	2		Lumnite					
			Calseal					
			Mud	50#				
			Mud	100#				
			Other (Describe)					
					E-2 MUD		1	
			OTHER					
			Water hauling _____ miles _____ loads					
			Core boxes: _____ size/ _____ no.					
			Length of waterline: _____					
			Lost tools: Description _____					
			Lost bits: Size _____ Serial no: _____					
			Depth: _____ ft. Hole # _____					
			Casing lost or left in hole: Size _____ ft. _____					
			for Client _____ Hole # _____					
			Longco _____ Hole # _____					
			Bit changes: Size _____ Serial # _____ Depth _____					
			(Include first bit in hole) <u>Nowil L19447-124</u>					
			<u>RA L17268 164</u>					
			<u>NQ L19432 169</u>					
			<u>Shell NQ L15331 164</u>					
Total Hours			10	10				
Driller's Initials			BH	DS				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAFFER	10	R. SCHOOL	10		
C						

Remarks: SAFETY MEETING PROTECTING YOUR MARK
BITS # L17268 ON 164 & BIT # L19432 ON 169
WERE BITS THAT WERE CHANGED OUT BEFORE ON OTHER
HOLE. USED THEM TO DRILL THROUGH REAL BAD GROUND.
(B.H.)

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 10 29 1987 Drill SKID 34 IR 704 1
 MONTH DAY TYPE DRILL NO. TRUCK NO.

Location: JEROME A2 Foreman's Signature: Bob Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
Day A	902-2-14		CHEMT	NQW1	172	188			16	8		
Aft B	902-2		CHEMT	NQ	186	193			5	3		
Nite C												

Hourly Distribution			Supplies Consumed					
Day	Aft.	Nite	Description	Size	Name	Day	Aft.	Nite
8	8		Core Drilling					
2	2		Handling Rod (change bit)					
			Overburden - rock bit					
			Collaring Hole - Dia. bit					
			Rotary Drilling					
			Handling Rod (bit)	50#	ET			
				100#				
			Rock Bit - Overburden					
			Reaming (to)					
			Casing - Placing					
			- Pulling					
			Delays - Client Acct.					
			Cementing - Handling Rods					
			- Prep Hole & Grout					
			- Setting					
			- Drilling					
			Moving - Hole to Hole					
			Rigging Up - Rigging Down					
			Mix Mud					
			Condition Hole, Lost Circulation					
			Surveying, Inclination Test					
			Mobilization/Demobilization					
			Other (Explain)					
			Total Hours	10	10			
			Driller's Initials	BH	DS			

OTHER
 Water hauling _____ miles _____ loads
 Core boxes: _____ size/ _____ no.
 Length of waterline: _____
 Lost tools: Description _____
 Lost bits: Size _____ Serial no. _____
 Depth: _____ ft. Hole # _____
 Casing lost or left in hole: Size _____ ft. Hole # _____
 for Client _____ Hole # _____
 Longco _____ Hole # _____
 Bit changes: Size Serial # Depth
 (Include NQ L19299 183
 first bit NQ L19300 190
 in hole) NQ L20232 193

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D SAUER	10	R SCHOOL	10		
C						

Remarks: pulled Rods TWICE FOR BIT DS
pulled rods 3 TIMES FOR BIT DS

NOTE: If item is chargeable to client; place circle around time entry. Please follow instructions on reverse side.

809-8/9

Driller's Rept. Summary

809-8		Footage	Client	+ Explanation
Date	in shift	Footage	Hours	
9-21-87	—	—	—	8 hrs (no charge) replacing transmission + overhaul
9-22 D	25	25	2	Moving + setup
N	45	70		
9-23 D	50	120		
N	35	155		
9-24 D	10	165		4 hrs. (no charge) equipment repair (transmission)
N	—	—		10 hrs (" ") transmission work
9-25 D	5	170		5 hrs (" ") drill repair (transmission + hydro pump)
N	7*	184	1	Plus 7' void (177'-184') ; 1 hr pulling rods for casing
9-28 D	2	186	4	4 hrs. (no charge) working on chuck ; 4 hrs. placing casing
N	15	201		
9-29 D	14	215		
N	17	232		
9-30 D	3	235	2	Removing casing.

11 shifts drilling, 235 ft, and 9 hrs. chargeable.

or 21.4 ft/shift

Used: 5 x 5 gal drums of EZ mud
 2 NQ bits, 1 NQ reamer shell,
 1 NQ casing shoe, 2 BR bits, 1 BR reamer

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G. Date: 9 21 1987 Drill SKID 34 1 /
 Location: JEROME #2 Foreman's Signature: Bert Hansen
MONTH DAY TYPE DRILL NO. TRUCK NO.

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A												
Aft B												
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling				Portland			Number of Units		
Handling Rod (change bit)				Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Equip. Reppin	8								
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods				OTHER					
- Prep Hole & Grout				Water hauling		miles			loads
- Setting				Core boxes:		size/			no.
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes: Size		Serial #			Depth
				(Include					
				first bit					
				in hole)					
Total Hours	8								
Driller's Initials	BH								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	8	R REEDY	8		
B						
C						

Remarks: WORKING ON DRILLING

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H. G Date: 9 22 1987 Drill SK. 134 / R 7041
MONTH DAY TYPE DRILL NO. TRUCK NO.

Location: JEROME A2 Foreman's Signature: Paul Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-8433		DIORITE	NGW1	0	25			25	23		
Aft B	409-8		diorite	NG	24	10			45	45		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	8	10		Portland					
Handling Rod (change bit)				Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)		E2 Mud			
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles _____ loads			
- Setting				Core boxes:		size/ _____ no.			
- Drilling				Length of waterline:		_____			
Moving - Hole to Hole	2			Lost tools: Description		_____			
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size _____ Serial no. _____					
Surveying, Inclination Test				Depth: _____ ft. Hole # _____					
Mobilization/Demobilization				Casing lost or left in hole: Size _____ ft.					
Other (Explain)				for Client _____ Hole # _____					
				Longco _____ Hole # _____					
				Bit changes: Size _____ Serial # _____ Depth _____					
				(Include NGW1 L16938 - 0					
				first bit NGW1 L15330 - 0 REAMER					
				in hole) _____ SHELL					
Total Hours	10	10							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	D SALLER	10	K SCHOON	10		
C						

Remarks: MOVED Drill.

[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G. Date: 9 23 19 87 Drill SKid 34 / R 704 /
 Location: JEROME A2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	704-8-33		diorite	Ngwl	70	120			50	37		
Aft B	704-8-33		diorite	Ng	120	155			35	33		
Nite C												

Hourly Distribution				Supplies Consumed							
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	Number of Units	
Core Drilling	10	10		Portland							
Handling Rod (change bit)				Lumnite							
Overburden - rock bit				Calseal							
Collaring Hole - Dia. bit				Mud	50#	EZ				1	
Rotary Drilling				Mud	100#						
Handling Rod (bit)				Other (Describe)							
Rock Bit - Overburden											
Reaming (to)											
Casing - Placing											
- Pulling											
Delays - Client Acct.											
Cementing - Handling Rods											
- Prep Hole & Grout				Water hauling		miles				loads	
- Setting				Core boxes:		size/				no.	
- Drilling				Length of waterline:							
Moving - Hole to Hole				Lost tools: Description							
Rigging Up - Rigging Down											
Mix Mud											
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.					
Surveying, Inclination Test				Depth:		ft. Hole #					
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.					
Other (Explain)				for Client		Hole #					
				Longco		Hole #					
				Bit changes: Size		Serial #				Depth	
				(Include							
				first bit							
				in hole)							
Total Hours	10	10									
Driller's Initials	BH	D.S.									

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEDY	10		
B	DUSABER	10	D. SCHOON	10		
C						

Remarks: _____

[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G. Date: 9 28 87 Drill SK: L 34 / R 7011
 Location: JEROME A2 Foreman's Signature: Paul Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-8	33	CHERT	B9W1	184	186			2	2	NG	185
Aft B	404-8			B9	186	201			15	15		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	2	10		Portland					
Handling Rod (change bit)				Lumnite					
Overburden - rock bit				Calsol					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
WORKING ON CHECKER = 4									
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing	(4)								
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	10	10							
Driller's Initials	BH	D.S.							

OTHER

Water hauling _____ miles _____ loads

Core boxes: _____ size/ _____ no.

Length of waterline: _____

Lost tools: Description _____

Lost bits: Size _____ Serial no. _____

Depth: _____ ft. Hole # _____

Casing lost or left in hole: Size _____ ft.

for Client _____ Hole # _____

Longco _____ Hole # _____

Bit changes: Size Serial # Depth

(Include first bit in hole) NGW1 17358 185 CASING SHOE

B9W1 L 9283 185 REAMER

B9W1 L 3523 185 BIT

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAKER	10	R. SCHORN	10		
C						

Remarks: HAD VERY HARD TIME GETTING CHECK BOLTS OUT TO CHANGE JAWS 11391

Paul Hansen

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 9 29 19 87 Drill SK.1 34 IR 704 1
 Location: JEROME #2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-8 +33		CHEMT	Bgw1	201	215			14	14		
Aft B	809-8		CHEMT diomite	Bgw B9	215 230	230 232			13 2	13 2		
Nite C												

Hourly Distribution		Day	Aft.	Nite
Core Drilling		9	9	
Handling Rod (change bit)		1	1	
Overburden - rock bit				
Collaring Hole - Dia. bit				
Rotary Drilling				
Handling Rod (bit)				
Rock Bit - Overburden				
Reaming (to)				
Casing - Placing				
- Pulling				
Delays - Client Acct.				
Cementing - Handling Rods				
- Prep Hole & Grout				
- Setting				
- Drilling				
Moving - Hole to Hole				
Rigging Up - Rigging Down				
Mix Mud				
Condition Hole, Lost Circulation				
Surveying, Inclination Test				
Mobilization/Demobilization				
Other (Explain)				
Total Hours		10	10	
Driller's Initials		BTH	D.S.	

Supplies Consumed		Day	Aft.	Nite
Description	Product Name			
Portland Cement				
Lumnite				
Causal Mud	50#			
Mud	100#			
Other (Describe)	EZ Mud			
OTHER				
Water hauling	miles			
Core boxes	size/no.			
Length of waterline				
Lost tools: Description				
Lost bits: Size	Serial no.			
Depth	ft. Hole #			
Casing lost or left in hole	Size ft.			
for Client	Hole #			
Longco	Hole #			
Bit changes:	Size Serial # Depth			
(Include first bit in hole)	Bgw1 13523 205			

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	10	R REEJY	10		
B	D. SAGER	10	R SCHOOL	10		
C						

Remarks: _____

Don White

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budg = U. G Date: 9 30 19 87 Drill SKID 34 IR7041

Location: JEROME #2 Foreman's Signature: Beit Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-8-33		DIORITE	BQ	232	235			3	3		
	809-9-5		DIORITE	NGWL	0	8			8	3		
Aft B	809-9-5		DIORITE	NGWL	8	73			65	65		
Nite C												

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Product	Day	Aft.	Nite
Core Drilling	3	10		Description			
Handling Rod (change bit)				Size			
Overburden - rock bit				Name			
Collaring Hole - Dia. bit				Number of Units			
Rotary Drilling				Portland			
Handling Rod (bit)				Lumnite			
Rock Bit - Overburden				Calseal			
Reaming (to)				Mud 50#			
Casing - Placing				Mud 100#			
- Pulling	②			Other (Describe)			
Delays - Client Acct.				Water hauling _____ miles			
Cementing - Handling Rods				Core boxes: _____ size/_____ no.			
- Prep Hole & Grout				Length of waterline: _____			
- Setting				Lost tools: Description _____			
- Drilling				Conditioning Hole: _____			
Moving - Hole to Hole	③			Lost bits: Size _____ Serial no. _____			
Rigging Up - Rigging Down				Depth: _____ ft. Hole # _____			
Mix Mud				Casing lost or left in hole: Size _____ ft.			
Condition Hole, Lost Circulation				for Client _____ Hole # _____			
Surveying, Inclination Test				Longco _____ Hole # _____			
Mobilization/Demobilization				Bit changes: Size _____ Serial # _____ Depth _____			
Other (Explain)				(Include <u>NGWL 17264</u> _____)			
				first bit _____			
				in hole) _____			
Total Hours	10	10					
Driller's Initials	B. HANSEN						

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAGER	10	R. SCHOON	10		
C						

Remarks: PULLED RODS PULLED CASING MOVED R. 9 (B.H.)

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

CLIENT

809-7 Driller's Rept. Summary

Don White
Aug. 1987

809-7

Date	Feet in shift	EZ Footage	Client Hours	+	Explanation
7-27 D	8	8	1		Moving + line-up
7-27-N	52	60			
7-28 D	51	111			
N	27	138			
7-29 D	35	173			
N	52	225			
7-30 D	19	244			Bit change
N	8	252	1		Conditioning hole - last circulation at 252
7-31 D	4	256	1		"Conditioning hole"
N	5	261			Bit change
8-3 D	10	271			
N	10	281			Bit change
8-4 D	10	291			
N	5	296			Bit change
8-5 D	10	306			
N	10	316			
8-6 D	—	—	5		Host problems. No drilling. 5 hrs waiting/standby 5 hrs dismissed
N	19	335 (E.O.H.)			Finished hole - lam. Pulling rods
8-7 D	—	—	—		Cleaning up rig for several week absence/standby.

17 shifts (drilling) 335 feet and 8 hours ⇒ 19.7 ft/shift overall

- Also
- 9 5-gal can EZ mud
 - 1 50-lb bag Mud-gel
 - 5 2-lb bags Quick-Trol
 - 6 NQ bits
 - 1 NQ reamer shell

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG Date: 7 29 19 87 Drill SK. 134 1R 704 1
Location: JEROME A 2 Foreman's Signature: [Signature]

Table with columns: Shift, Hole No., Angle, Material Drilled, Bit Size & Type, Footage Summary (Drilling, Reaming), Feet (Drilled or Reamed, Core Recovered), Total Casing in Hole (Size, Footage).

Hourly Distribution table with columns: Hourly Distribution (Core Drilling, Handling Rod, Overburden, etc.), Day, Aft., Nite.

Supplies Consumed table with columns: Description, Size, Product Name, Day, Aft., Nite, Number of Units.

Table with columns: Shift, DRILLERS, Hrs., HELPERS, Hrs., TRUCK DRIVERS, Hrs.

Remarks: [Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budger U.G Date: 7 31 1987 Drill SK. 134 IR 704
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME 112 Foreman's Signature: Ray Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-7 + 10			NGW1	232	256			4	4		
Aft B	809-7			NQ	256	261			5	5		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	6	8		Portland					
Handling Rod (change bit)	1			Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#	EZ		1	
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation	(1)								
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	8	8							
Driller's Initials	BA	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	8	R. REEDY	8		
B	D. SAGER	8	S. CARTOR	8		
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG Date: 8 7 1987 Drill SK: 134 IR 704 /
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME A 2 Foreman's Signature: Beit Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-711C			NW1 335 (EOH)								
Aft B												
Nite C												

Hourly Distribution				Supplies Consumed							
Day	Aft.	Nite		Description	Size	Name	Product	Day	Aft.	Nite	
								Number of Units			
				Core Drilling							
	2			Handling Rod (change bit)							
				Overburden - rock bit							
				Collaring Hole - Dia. bit							
				Rotary Drilling							
				Handling Rod (bit)							
	4			BIT & PAPER WORK							
				Rock Bit - Overburden							
				Reaming (to)							
				Casing - Placing							
				- Pulling							
				Delays - Client Acct.							
				Cementing - Handling Rods							
				- Prep Hole & Grout							
				- Setting							
				- Drilling							
				Moving - Hole to Hole							
				Rigging Up - Rigging Down							
				Mix Mud							
				Condition Hole, Lost Circulation							
				Surveying, Inclination Test							
				Mobilization/Demobilization							
				Other (Explain)							
				Total Hours	6						
				Driller's Initials	BH						

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B HANSEN	6	R REELEY	3		
B						
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

CLIENT

809-6 Driller's Repts. Summary

Don White
July, 1987

809-6

Date	Feet in shift	Σ Footage	Client Hours	+	Explanation
7-10D			1	}	Moving to new hole
N	19	19	2		
7-13D	27	46			
N	24	70			
7-14D	30	100			
N	31	131			
7-15D	25	156	1	}	Habit delays
N	20	176	1		
7-16D	13	189			
N	7	196	4		Casing down from HQ to NQ at 191'
7-17D	10	206			
N	12	218			
7-20D	13	231			
N	10	241			
7-21D	14	255			
N	11	266			
7-22D	15	281			
N	18	299			
7-23D	17	316			
N	10	326			
7-24D	5	331			
N	8	339 (E.H.)			
7-27D	—	—	2		Pulling HQ casing

21 shifts drilling + 11 hours charged ⇒ 16.1 ft/shift overall

Also 14 5-gal cans EZ mud
 1 HQ bit
 9 NQ bits
 1 NQ reamer shell

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG Date: 7 14 1987 Drill: SKID 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Per Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-6 + 23		30' diante	HQW	70	100			30	30		
Aft B	809-6		31' diante	H Q	100	131			31	31		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
							Number of Units		
Core Drilling	10	10		Portland					
Handling Rod (change bit)				Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles			loads
- Setting				Core boxes:		size/			no.
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes: Size		Serial #			Depth
				(Include					
				first bit					
				in hole)					
Total Hours	10	10							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAGER	10	S. SARTER	10		
C						

Remarks: _____

[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG Date: 7 16 19 87 Drill SKID 34 IR 704 1
 Location: JEPOME H2 Foreman's Signature: Boert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-6 + 23		13' dirt	Hgw1	176	189			13	11		
Aft B	809-6		7' dirt	HQ	189	191			2	2		
	809-6			NQ	191	196			5	5		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	8	6		Portland					
Handling Rod (change bit)	2			Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#	FE		1	
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing		(4)							
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles			loads
- Setting				Core boxes:		size/			no.
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes:	Size	Serial #	Depth		
				(Include	Hgw1	L8419	182		
				first bit					
				in hole)	NQ	L15773	191		
Total Hours	10	10							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAKER	10	S. CARTER	10		
C						

Remarks: pulled HQ rods 94 FOR CASING
STARTED DRING WITH NQ D.S.

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H.G. Date: 7 17 1987 Drill SK: L 34 IR 704 1
 Location: JEROME A2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-6+23	23		Ngw1	196	206			10	10		
Aft B	809-6			NQ	206	218			12	12		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	6	87		Portland					
Handling Rod (change bit)	2	1		Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden						E2 Mud 59A1	1	1	
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods				OTHER					
- Prep Hole & Grout				Water hauling		miles			loads
- Setting				Core boxes:		size/			no.
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes: Size		Serial #			Depth
				(Include first bit in hole)	Ngw1	L16059			204
					NQ	L16058			218
					NQ	L7608			218
Total Hours	8	8		SH-11					
Driller's Initials	B.H.	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	8	R. ROOPY	8		
B	DISAGER	8	S. CARTER	8		
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge HG Date: 7 22 1987 Drill SKID 34 IR 7041
 Location: JEROME A 2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-64	23		NQW1	266	281			15	14		
Aft B	809-6			NQ	281	299			18	17		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	8	9		Portland					
Handling Rod (change bit)	2	1		Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#	EZ		1	
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	10	10							
Driller's Initials	BH	D.S.							

OTHER

Water hauling _____ miles _____ loads

Core boxes: _____ size/ _____ no.

Length of waterline: _____

Lost tools: Description _____

Lost bits: Size _____ Serial no. _____

Depth: _____ ft. Hole # _____

Casing lost or left in hole: Size _____ ft. _____

for Client _____ Hole # _____

Longco _____ Hole # _____

Bit changes: Size Serial # Depth

(Include first bit in hole) NQW1 L16064 278

NQ L15781 299

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAGER	10	S. CARTER	10		
C						

Remarks: _____

[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

809-4/5 Driller's Rept. Summary

Don White
June/July, 1967

809-4

Date	Feet in shift	Σ footage	Client's Hours	Explanation	Remarks
6-16 Nite	12	12	2	Moving, hole to hole	
6-17 Day	50	62			
N	50	112			
6-18 D	30	142			
N	27	169			
6-19 D	7	176			
N	8	184	1	"Conditioning hole"	
6-22 D	18	202			
N	15	217			
6-23 D	20	237			
N	11	248			(Shut down for shaft work, 6-24 thru 6-26)
6-29 D	—	—	2	Standby - hoist still under repair + shut down.	Cancelled day shift
N	9	257			
6-30 D	12	269			
N	4	273	7	Placing casing (NQ \rightarrow BQ at 269')	Bad case at ~160'
7-1 D	19	292			
N	20	312			
7-2 D	15	327			
N	20	347			
7-6 D	22	369 (Est)			
N	—	—	3	Pulling casing	

809-4 materials 14 5-gal cans EZ mud
6 NQ bits
1 NQ reamer shell
1 NQ casing shoe
3 BQ bits

19 shifts drilling + 15 hours charged \Rightarrow 19.4 ft/shift overall.
+ 2 partial shifts (standby + pulling casing)

809-5

7-6 N	20	20	2	Moving, hole to hole	
7-7 D	60	80	2	Standby for hoist delay	
N	30	110			
7-8 D	32	142			
N	13	155			
7-9 D	10	165	3	Conditioning hole (Greasing, rods etc.)	Loss circulation
N	15	180	1	" "	" "
7-10 D	15	195 (Est)			
N	—	—			

8 shifts drilling + 8 hours charged \Rightarrow 24.0 ft/shift overall
Also 7 5-gal cans EZ mud,
4 NQ bits
1 NQ reamer shell

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge UG

Date: 6 19 1987 Drill SK: 134 IR 7041

Location: JEPOME A2

Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	809-4123	23	7' chert	NQW1	169	176			7	7		
Aft B	809-4		8' chert	NQ	176	184			8	8		
Nite C												

Hourly Distribution				Supplies Consumed						
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	
Core Drilling	8	7		Portland						
Handling Rod (change bit)				Lumnite						
Overburden - rock bit				Calseal						
Collaring Hole - Dia. bit				Mud	50#	EZ		1		
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)						
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
- Pulling										
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout				Water hauling		miles			loads	
- Setting				Core boxes:		size/			no.	
- Drilling				Length of waterline:						
Moving - Hole to Hole				Lost tools: Description						
Rigging Up - Rigging Down										
Mix Mud										
Condition Hole, Lost Circulation			(1)	Lost bits: Size		Serial no.				
Surveying, Inclination Test				Depth:		ft. Hole #				
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.				
Other (Explain)				for Client		Hole #				
				Longco		Hole #				
				Bit changes: Size		Serial #			Depth	
				(Include first bit in hole)	NQ	LD250	176			
Total Hours	8	8								
Driller's Initials	BH	D.S.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	8	R. REEDY	8		
B	D. SAGER	8	L. SAGER	8		
C						

Remarks: CHANGED BIT DS. HAD TO REAM 15' TO BOTTOM

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY
Contracting Division
General Office
Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge 116 Date: 6 23 1987 Drill SK. 1 3 4 1R 704 1
MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME A2 Foreman's Signature: Paul Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-4 123		20' chert	NQW1	217	237			20	20		
Aft B	809-4		11' chert	NQ	237	248			11	11		
Nite C												

Hourly Distribution				Supplies Consumed								
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	Number of Units		
Core Drilling	10	10		Portland								
Handling Rod (change bit)		1		Lumnite								
Overburden - rock bit				Calseal								
Collaring Hole - Dia. bit				Mud	50#	EZ				1		
Rotary Drilling				Mud	100#							
Handling Rod (bit)				Other (Describe)								
Rock Bit - Overburden												
Reaming (to)												
Casing - Placing												
- Pulling												
Delays - Client Acct.												
Cementing - Handling Rods												
- Prep Hole & Grout				Water hauling		miles				loads		
- Setting				Core boxes:		size/				no.		
- Drilling				Length of waterline:								
Moving - Hole to Hole				Lost tools: Description								
Rigging Up - Rigging Down												
Mix Mud				Lost bits: Size		Serial no.						
Condition Hole, Lost Circulation				Depth:		ft. Hole #						
Surveying, Inclination Test				Casing lost or left in hole: Size		ft.						
Mobilization/Demobilization				for Client		Hole #						
Other (Explain)				Longco		Hole #						
				Bit changes: Size		Serial #				Depth		
				(Include	NQ	L10249				248		
				first bit								
				in hole)								
Total Hours	10	10										
Driller's Initials	BPH	D.S.										

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R. REEDY	10		
B	D. SAGER	10	No helper			
C						

Remarks: CHANGED BIT. 140' rod back in the hole.
L SAGER quit, M. NEH helped

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: BUDGE U G Date: 6 29 1987 Drill SKID 34 1R704 /
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME A2 Foreman's Signature: Bob Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-4+23			NQ								
Aft B	909-4+23		9' chert	NQ	244	257			9	7		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Handling Rod (change bit)		8		Portland					
Overburden - rock bit		2		Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#	EZ		1	
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)					
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
<u>Standby</u>		(2)							
Cementing - Handling Rods									
- Prep Hole & Grout				Water hauling		miles		loads	
- Setting				Core boxes:		size/		no.	
- Drilling				Length of waterline:					
Moving - Hole to Hole				Lost tools: Description					
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.			
Surveying, Inclination Test				Depth:		ft. Hole #			
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.			
Other (Explain)				for Client		Hole #			
				Longco		Hole #			
				Bit changes: Size		Serial #			
				(Include	NQ	L10253		257	
				first bit					
				in hole)					
Total Hours	2	10							
Driller's Initials	BH	RS							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	2	R. REESY	2		
B	D. SAGER	10	S. CARTER	10		
C						

Remarks: CHANGED BIT

Don White

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U G

Date: 7 / 1 1987 Drill SK. & 34 / 1R7041

MONTH DAY

TYPE

DRILL NO.

TRUCK NO.

Location: JEROME A2

Foreman's Signature: Bois Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-41	23	19' chert	Bqwl	273	292			19	19		
Aft B	809-4		20' chert	BQ	292	312			20	20		
Nite C												

Hourly Distribution				Supplies Consumed						
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	
Core Drilling	8	10		Portland						
Handling Rod (change bit)	2			Lumnite						
Overburden - rock bit				Calseal						
Collaring Hole - Dia. bit				Mud	50#	EZ		1		
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)						
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
- Pulling										
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout				Water hauling		miles			loads	
- Setting				Core boxes:		size/			no.	
- Drilling				Length of waterline:						
Moving - Hole to Hole				Lost tools: Description						
Rigging Up - Rigging Down										
Mix Mud										
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.				
Surveying, Inclination Test				Depth:		ft. Hole #				
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.				
Other (Explain)				for Client		Hole #				
				Longco		Hole #				
				Bit changes:	Size	Serial #	Depth			
				(Include	Bqwl	L3524	278			
				first bit						
				in hole)						
Total Hours	10	10								
Driller's Initials	BH	D.S.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HANSEN	10	R REEDY	10		
B	D. SAGER	10	S. GARTER	10		
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U G Date: 7 6 1987 Drill SK.1 34 IR 704 1
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME A2 Foreman's Signature: Red Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-41	23	22' chert	Bowl	347	369			22	19		
Aft B	809-5	12	20' diorite	NQ	0	20			20	1 1/2		
Nite C												

Hourly Distribution				Supplies Consumed						
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	
							Number of Units			
Core Drilling	8	5		Portland						
Handling Rod (change bit)	2			Lumnite						
Overburden - rock bit				Calseal						
Collaring Hole - Dia. bit				Mud	50#					
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)						
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
CASING Pulling		(3)								
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout				Water hauling		miles			loads	
- Setting				Core boxes:		size/			no.	
- Drilling				Length of waterline:						
Moving - Hole to Hole		(2)		Lost tools: Description						
Rigging Up - Rigging Down										
Mix Mud										
Condition Hole, Lost Circulation				Lost bits: Size		Serial no.				
Surveying, Inclination Test				Depth:		ft. Hole #				
Mobilization/Demobilization				Casing lost or left in hole: Size		ft.				
Other (Explain)				for Client		Hole #				
				Longco		Hole #				
				Bit changes: Size		Serial #			Depth	
				(Include						
				first bit	L97576	Bowl	L97576	354	11	
				in hole)	NQ	L11255	10			
					Shell	NQ	L7609	0		
Total Hours	19	10	25							
Driller's Initials	BH	D.S.								

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	W.B. HANSEN	10	R. REEDY	10		
B	D. SAGER	10	S. CARTER	10		
C						

Remarks: pulled Rods CASING STARTED NEW HOLE.

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge H G Date: 7 9 1987 Drill SK. 2 34 1R 704 1
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: JEROME H2 Foreman's Signature: Per Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	809-5*	12	chert 10'	NWQL	155	165			10	10		
Aft B	809-5		75' chert	NQ	165	180			15	15		
Nite C												

Hourly Distribution				Supplies Consumed						
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite	
Core Drilling	6	7		Portland						
Handling Rod (change bit)	1	2		Lumnite						
Overburden - rock bit				Causeal						
Collaring Hole - Dia. bit				Mud	50#					
Rotary Drilling				Mud	100#					
Handling Rod (bit)				Other (Describe)						
Rock Bit - Overburden										
Reaming (to)										
Casing - Placing										
- Pulling										
Delays - Client Acct.										
Cementing - Handling Rods										
- Prep Hole & Grout										
- Setting										
- Drilling										
Moving - Hole to Hole										
Rigging Up - Rigging Down										
Mix Mud										
Condition Hole, Lost Circulation	(3)	(1)								
Surveying, Inclination Test										
Mobilization/Demobilization										
Other (Explain)										
Total Hours	10	10								
Driller's Initials	BH	D.S.								

OTHER		
Water hauling	_____ miles	_____ loads
Core boxes:	_____ size/	_____ no.
Length of waterline:	_____	
Lost tools: Description	_____	
Lost bits: Size	_____	Serial no. _____
Depth:	_____ ft.	Hole # _____
Casing lost or left in hole: Size	_____ ft.	
for Client	_____	Hole # _____
Longco	_____	Hole # _____
Bit changes:	Size	Serial #
(Include first bit in hole)	NQ	L15774
		169

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B. HAUSEN	10	R. REEDY	10		
B	D. SAGER	10	S. CARTER	10		
C						

Remarks: LOST Circ. Trying to Restore Circ. pulled Rods for
CHASE. CBH pumped PAPER 2 TIMES. DS
CHANGED BIT.

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

902-6

Drillers' Report Summary

Don White
Nov. '87

902-6

Date	Footage in shift	Σ Footage	Client Hours	* Explanation
------	------------------	-----------	--------------	---------------

11-18-N — — 1

Moving, 902-5 ⇒ 6

11-19-D 25 25 2

Completed move + line-up.

N 25 50

11-20-D 10 60

N 10 70

11-23-D 10 80

N 2 82 3

Placing casing (HQ ⇒ NQ reduction @ 82')

11-24-D 13 95

N 20 115

11-25-D 10 125

N 15 140

Used:

5 units of EZ mud

3 HQ bits

1 HQ reamer shell

11-26/27 Thanksgiving holiday

11-30-D 3 143 (ECH) 2

Pulling casing

1 HQ casing shoe

2 NQ bits

1 NQ reamer shell

10 shifts and 8 hours to drill 143 feet
or 14.3 ft/shift

902-7

11-30-D 4 4 2

Moving, 902-6 ⇒ 7

N 31 35

12-1-D — —

Driller sick, no day shift

N 17 52

12-2-D 13 65

N 15 80 2

Placing casing (HQ to 66')

12-3-D 20 100

N 12 112

12-4-D

N

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: BUDGE UG Date: 11 19 1987 Drill SKid 34 IR 704 1
 Location: JEROME #2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-6445		diorite	Hgw1	0	25			25	20		
Aft B	902-6		diorite	HQ	25	50			25	25		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Name	Day	Aft.	Nite
Handling Rod (change bit)	8	10		Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)		EZ Mud			
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole	2								
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	10	10							
Driller's Initials	B.H.	D.G.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr
A	B HANSEN	10	R REEDY	10		
B	D SAGER	10	R SCHOB	10		
C						

Remarks: hard rock @ 49'

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 11 22 1987 Drill SK. 134 IR 704 1
 Location: JEROME #2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Recovered	Size	Footage
					From	To	From	To				
Day A	902-6445		CHERT	Hqw 1	70	80			10	10		
Aft B	902-6			HQ	80	82			2	2	HQ	40
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	9	7		Portland					
Handling Rod (change bit)	1			Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)					
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	10	10							
Driller's Initials	BH	D.S.							

OTHER

Water hauling _____ miles _____ loads

Core boxes: _____ size/ _____ no.

Length of waterline: _____

Lost tools: Description _____

Lost bits: Size _____ Serial no. _____

Depth: _____ ft. Hole # _____

Casing lost or left in hole: Size _____ ft.

for Client _____ Hole # _____

Longco _____ Hole # _____

Bit changes: Size Serial # Depth

(Include first bit in hole)

Hqw 1 L21716 75

HQ L20730 82

HQ L19236 82 SH 111

CASING SHOP HQ 18816

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr
A	B HANSEN	10	R REEDY	10		
B	D. SAGER	10	R SCHOON	10		
C						

Remarks: _____

[Signature]

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: BUDGE U.G Date: 11 24 1987 Drill SKID 34 IR 7041
 Location: JEROME A2 Foreman's Signature: Bert Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-6+	45	CHERT	NQW1	82	95			13	13		
Aft B	902-6			NQ	95	115			20	20		
Nite C												

Hourly Distribution				Supplies Consumed					
	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Core Drilling	10	9		Portland					
Handling Rod (change bit)		1		Lumnite					
Overburden - rock bit				Calseal					
Collaring Hole - Dia. bit				Mud	50#				
Rotary Drilling				Mud	100#				
Handling Rod (bit)				Other (Describe)		1 EZ Mud	1		
Rock Bit - Overburden									
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	10	10							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr.
A	B HANSEN	10	R REEDY	10		
B	D SAGER	10	R SCHOON	10		
C						

Remarks: _____

D. White

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budge U.G Date: 11 25 1987 Drill SK. 134 1R7041
 Location: JEROME A2 Foreman's Signature: Barth Hansen

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A	902-6-45		CHERT	NQW1	115	125			10	10		
Aft B	902-6		CHERT	NQ	125	140			15	15		
Nite C												

Hourly Distribution				Supplies Consumed					
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
Handling Rod (change bit)				Portland					
Overburden - rock bit				Lumnite					
Collaring Hole - Dia. bit				Calseal					
Rotary Drilling				Mud	50#				
Handling Rod (bit)				Mud	100#				
Rock Bit - Overburden				Other (Describe)					
Reaming (to)									
Casing - Placing									
- Pulling									
Delays - Client Acct.									
Cementing - Handling Rods									
- Prep Hole & Grout									
- Setting									
- Drilling									
Moving - Hole to Hole									
Rigging Up - Rigging Down									
Mix Mud									
Condition Hole, Lost Circulation									
Surveying, Inclination Test									
Mobilization/Demobilization									
Other (Explain)									
Total Hours	8	8							
Driller's Initials	BH	D.S.							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr.
A	B. HANSEN	8	R. REEDY	8		
B	D. SAUER	8	R. SCHOON	8		
C						

Remarks: SAFETY MEETING FLAMABLE & COMBUSTIBLE LIQUID

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division
General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: Budg U.G Date: 11 26 1987 Drill SK. 34 IR 704 /
 Location: JEROME A 2 Foreman's Signature: [Signature]
MONTH DAY TYPE DRILL NO. TRUCK NO.

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A												
Aft B												
Nite C												

Hourly Distribution			Supplies Consumed					
Day	Aft.	Nite	Description	Size	Product Name	Day	Aft.	Nite
			Core Drilling					
			Handling Rod (change bit)					
			Overburden - rock bit					
			Collaring Hole - Dia. bit					
			Rotary Drilling					
			Handling Rod (bit)					
			Rock Bit - Overburden					
			Reaming (to)					
			Casing - Placing					
			- Pulling					
			Delays - Client Acct.					
			Cementing - Handling Rods					
			- Prep Hole & Grout					
			- Setting					
			- Drilling					
			Moving - Hole to Hole					
			Rigging Up - Rigging Down					
			Mix Mud					
			Condition Hole, Lost Circulation					
			Surveying, Inclination Test					
			Mobilization/Demobilization					
			Other (Explain) <u>HOLIDAY</u>					
			Total Hours	<u>8</u>	<u>8</u>			
			Driller's Initials					

Supplies Consumed

Product Name **Day** **Aft.** **Nite**

Description **Size** **Number of Units**

Portland Cement _____

Lumnite _____

Calseal _____

Mud 50# _____

Mud 100# _____

Other (Describe) _____

OTHER

Water hauling _____ miles _____ loads

Core boxes: _____ size/ _____ no.

Length of waterline: _____

Lost tools: Description _____

Lost bits: Size _____ Serial no. _____

Depth: _____ ft. Hole # _____

Casing lost or left in hole: Size _____ ft. _____

for Client _____ Hole # _____

Longco _____ Hole # _____

Bit changes: Size _____ Serial # _____ Depth _____

(Include first bit in hole)

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr
A	<u>B HANSEN</u>	<u>8</u>	<u>R REELIN</u>	<u>8</u>		
B	<u>D SAGER</u>	<u>8</u>	<u>R SCHOON</u>	<u>8</u>		
C						

Remarks: _____

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: BUDGE U.G Date: 11 27 19 DRILL SKID 34 IR 704 1
 Location: JEROME A2 Foreman's Signature: [Signature]

Shift	Hole No.	Angle	Material Drilled	Bit Size & Type	Footage Summary				Feet		Total Casing in Hole	
					Drilling		Reaming		Drilled or Reamed	Core Re-covered	Size	Footage
					From	To	From	To				
Day A												
Aft B												
Nite C												

Hourly Distribution				Supplies Consumed			
Day	Aft.	Nite		Product	Day	Aft.	Nite
Core Drilling				Description	Size	Number of Units	
Handling Rod (change bit)				Portland			
Overburden - rock bit				Lumnite			
Collaring Hole - Dia. bit				Calseal			
Rotary Drilling				Mud	50#		
Handling Rod (bit)				Mud	100#		
Rock Bit - Overburden				Other (Describe)			
Reaming (to)							
Casing - Placing							
- Pulling							
Delays - Client Acct.							
Cementing - Handling Rods							
- Prep Hole & Grout							
- Setting							
- Drilling							
Moving - Hole to Hole							
Rigging Up - Rigging Down							
Mix Mud							
Condition Hole, Lost Circulation							
Surveying, Inclination Test							
Mobilization/Demobilization							
Other (Explain) <u>HOLIDAY</u>	<u>8</u>	<u>8</u>					
Total Hours	<u>8</u>	<u>8</u>					
Driller's Initials							

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hr.
A	<u>B. HANSEN</u>	<u>8</u>	<u>R. REEDY</u>	<u>8</u>		
B	<u>D. SAGER</u>	<u>8</u>	<u>R. SCHODN</u>	<u>8</u>		
C						

Remarks:

NOTE: If item is chargeable to client, place circle around time entry. Please follow instructions on reverse side.