

LONGYEAR COMPANY

Contracting Division

General Office

Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 9 7 19 83 Drill HD 500 / 3354 / 3356
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: COSO Foreman's Signature: Doug M. Ferguson

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	<u>CGCTH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1915</u>	<u>1943</u>			<u>28</u>	<u>28</u>	<u>10</u>	<u>1163</u>
Aft B	<u>CGCTH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1943</u>	<u>1965</u>			<u>22</u>	<u>22</u>		
Nite C	<u>CGCTH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1965</u>	<u>2007</u>			<u>42</u>	<u>42</u>		

Hourly Distribution				Supplies Consumed			
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Number of Units
Handling Rod (change bit)	<u>8</u>	<u>7</u>	<u>8</u>	Portland			
Overburden - rock bit				Lumnite			
Collaring Hole - Dia. bit				Calseal			
Rotary Drilling				Mud	<u>50#</u>	<u>NOVA</u>	<u>4</u>
Handling Rod (bit)				Mud	<u>100#</u>		<u>4</u>
Rock Bit - Overburden				Other (Describe)			<u>5</u>
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	<u>8</u>	<u>8</u>	<u>8</u>				
Driller's Initials	<u>RL</u>	<u>CH</u>	<u>HAL</u>				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>R. Lousoy</u>	<u>8</u>	<u>D. Ferguson</u>	<u>8</u>	<u>W. Sheltman</u>	<u>8</u>
B	<u>C. Anderson</u>	<u>8</u>	<u>W. Bigler</u>	<u>8</u>	<u>W. Jenkins</u>	<u>8</u>
C	<u>K.R. Hall</u>	<u>8</u>	<u>L. Betsy</u>	<u>8</u>	<u>F. Loder</u>	<u>8</u>

Remarks: 1 hr. Day Ck. lost Core.
3 Shifts H²O Haul-in.
R. A. Payne

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: CHINA LAKE Date: 9 6 1983 Drill HD 5001 3254 13356
 Location: COSO CAL Foreman's Signature: Harry W. Ferguson

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	CGCTCH 74-2	90		HQWL	1845	1875			30	30		
Aft B	CBC TCH 74-2	90		HQWL	1875	1894			19	19		
Nite C	CGCTCH 74-2	90		HQWL	1894	1915			21	21		

Hourly Distribution				Supplies Consumed			
Core Drilling	Day	Aft.	Nite	Description	Size	Product Name	Number of Units
Handling Rod (change bit)	5	5	4	Portland			
Overburden - rock bit	3	1	2	Lumnite			
Collaring Hole - Dia. bit				Calseal			
Rotary Drilling				Mud	50#	NOVA	3
Handling Rod (bit)				Mud	100#		8
Rock Bit - Overburden				Other (Describe)			5
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)							
Drilling Case To Bottom							
Total Hours	8	8	8				
Driller's Initials	RL	JA	YAL				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	R. Loughey	8	D. Ferguson	8	W. Sherman	8
B	C. Anderson	8	W. B. Brier	8	J. E. Jenkins	8
C	K. R. Hall	8	L. B. Brier	8	F. L. Lohr	8

Remarks: lost circulation AT 1880 during shift CJA
Nite Drilled case from 1440 to bottom of hole 9216

LONGYEAR COMPANY

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Minneapolis, Minnesota 55414

"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 9 5 19 83 Drill HD 500 / 3354 / 3356
 Location: COSO CAL Foreman's Signature: Darryl W. Ferguson

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	<u>CGC TH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1780</u>	<u>1784</u>			<u>4</u>	<u>4</u>		
Aft B	<u>CGC TH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1784</u>	<u>1809</u>			<u>25</u>	<u>25</u>		
Nite C	<u>CGC TH 74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1809</u>	<u>1845</u>			<u>36</u>	<u>36</u>		

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Description	Size	Product Name	Day Aft. Nite
Core Drilling	<u>3</u>	<u>5</u>	<u>8</u>	Portland			
Handling Rod (change bit)	<u>3</u>			Lumnite			
Overburden - rock bit				Calseal			
Collaring Hole - Dia. bit				Mud	<u>50#</u>	<u>NDUA</u>	<u>3</u> <u>9</u> <u>6</u>
Rotary Drilling				Mud	<u>100#</u>		
Handling Rod (bit)				Other (Describe)	<u>CMC 50#</u>		<u>1</u>
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	<u>1783</u>						
Condition Hole, Lost Circulation	<u>(2)</u>						
Surveying, Inclination Test							
Mobilization/Demobilization							
Other (Explain)							
<u>Drilling Casing To Bottom</u>	<u>(3)</u>						
Total Hours	<u>8</u>	<u>8</u>	<u>8</u>				
Driller's Initials	<u>RL</u>	<u>CR</u>	<u>TH</u>				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>R. Lovejoy</u>	<u>8</u>	<u>D. Ferguson</u>	<u>8</u>	<u>W. Shellman</u>	<u>8</u>
B	<u>C. Anderson</u>	<u>8</u>	<u>W. Bigler</u>	<u>8</u>	<u>J. L. Jenkins</u>	<u>8</u>
C	<u>K. R. Hall</u>	<u>8</u>	<u>L. Berry</u>	<u>8</u>	<u>F. Loder</u>	<u>8</u>

Remarks: 2 hr. D/W lost circ.
3 Shifts water haulen

LONGYEAR COMPANY

Contracting Division

General Office --

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"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 9 4 19 83 Drill HD 500/3354 13356
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: COSO CAI Foreman's Signature: Ray W. Ferguson

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	CGCTCH 74-2	90		HQWL	1706	1730			24	74		
Aft B	CGC TCH 74-2	90		HQWL	1730	1755			25	25		
Nite C	CGCTCH 74-2	90		HQWL	1755	1780			25	25		

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Description	Size	Product Name	Number of Units
Core Drilling	8	8	8	Portland			
Handling Rod (change bit)				Lumnite			
Overburden - rock bit				Calseal			
Collaring Hole - Dia. bit				Mud	50#	NOVA	6
Rotary Drilling				Mud	100#		6
Handling Rod (bit)				Other (Describe)			6
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	8	8	8				
Driller's Initials	RL	CH	3/PA				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	R. Loney	8	D. Ferguson	8	W. Shellman	8
B	C. Anderson	8	W. Bigler	8	J. L. Jenkins	8
C	K. R. Hall	8	L. Berry	8	F. Loder	8

Remarks: 3 shifts. water hauler -

Bobbie Bishop

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

LONGYEAR COMPANY
Contracting Division
General Office —
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"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 9 3 19 83 Drill H2500 / 3354 / 3356
MONTH DAY TYPE DRILL NO. TRUCK NO.
Location: Cisco Foreman's Signature: Dary W. Ferguson

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	<u>74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1616</u>	<u>1650</u>			<u>34</u>	<u>34</u>		
Aft B	<u>74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1650</u>	<u>1675</u>			<u>25</u>	<u>25</u>		
Nite C	<u>74-2</u>	<u>90</u>		<u>HQWL</u>	<u>1675</u>	<u>1706</u>			<u>31</u>	<u>31</u>		

Hourly Distribution				Supplies Consumed			
	Day	Aft.	Nite	Description	Size	Product Name	Number of Units
Core Drilling	<u>8</u>	<u>8</u>	<u>8</u>	Portland			
Handling Rod (change bit)				Lumnite			
Overburden - rock bit				Calseal			
Collaring Hole - Dia. bit				Mud	<u>50#</u>	<u>NOVA</u>	<u>8</u>
Rotary Drilling				Mud	<u>100#</u>		<u>4</u>
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	<u>8</u>	<u>8</u>	<u>8</u>				
Driller's Initials	<u>RL</u>	<u>SA</u>	<u>9/8</u>				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>R. Lourey</u>	<u>8</u>	<u>D. Ferguson</u>	<u>8</u>	<u>W. Shelton</u>	<u>8</u>
B	<u>C. Anderson</u>	<u>8</u>	<u>W. Bigler</u>	<u>8</u>	<u>T. Jenkins</u>	<u>8</u>
C	<u>K. R. Hall</u>	<u>8</u>	<u>L. Berry</u>	<u>8</u>	<u>E. Loder</u>	<u>8</u>

Remarks: 3 shifts water heater
B. P. Pashup

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"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 9 2 1983 Drill HD 500 / 3254 / 3356
MONTH DAY TYPE DRILL NO. TRUCK NO.
Location: COSO CAL Foreman's Signature: Darryl W. Ferguson

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	<u>CG 74-2</u>	<u>90</u>		<u>HAUL</u>	<u>1517</u>	<u>1564</u>			<u>47</u>	<u>47</u>		
Aft B	<u>CG 74-2</u>	<u>90</u>		<u>HAUL</u>	<u>1564</u>	<u>1583</u>			<u>19</u>	<u>19</u>		
Nite C	<u>CG 74-2</u>	<u>90</u>		<u>HAUL</u>	<u>1583</u>	<u>1616</u>			<u>33</u>	<u>33</u>		

Hourly Distribution				Supplies Consumed			
Day	Aft.	Nite		Description	Size	Product Name	Number of Units
Core Drilling	<u>8</u>	<u>8</u>	<u>8</u>	Portland			
Handling Rod (change bit)				Lumnite			
Overburden - rock bit				Calseal			
Collaring Hole - Dia. bit				Mud	<u>50#</u>	<u>ALCOA</u>	<u>2</u>
Rotary Drilling				Mud	<u>100#</u>		<u>3</u>
Handling Rod (bit)				Other (Describe)			<u>7</u>
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	<u>8</u>	<u>8</u>	<u>8</u>				
Driller's Initials	<u>RP</u>	<u>CH</u>	<u>YH</u>				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>R. Lovelox</u>	<u>8</u>	<u>D. Ferguson</u>	<u>8</u>	<u>W. Skellern</u>	<u>8</u>
B	<u>G. Anderson</u>	<u>8</u>	<u>W. Bigler</u>	<u>8</u>	<u>T. L. Hopkins</u>	<u>8</u>
C	<u>K. R. Hall</u>	<u>8</u>	<u>L. Berry</u>	<u>8</u>	<u>F. Loder</u>	<u>8</u>

Remarks: 3 Shifts Water Hauler.

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: CHINA Lake Date: 9 / 1 1983 Drill 13354 / 3356
 Location: COSO CAL 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	66674-H	90		HQWL	1486	1503			17	17		
	74-2											
Aft B	66674-H	90		HQWL	1503	1513			10	10		
	74-2											
Nite C	66674-H	90		HQWL	1513	1517			4	4		
	74-2											

Hourly Distribution	Day	Aft.	Nite
Core Drilling	5 1/2	5 1/2	4
Handling Rod (change bit)			4
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)			
Naval Test	3 hrs	2 1/2	
Total Hours	8 1/2	8	4
Driller's Initials	RL	CH	YHL

Supplies Consumed				Day	Aft.	Nite
Description	Size	Product Name		Number of Units		
Portland						
Lumnite						
Calseal						
Mud	50#	NAUG		5	6	5
Mud	100#					
Other (Describe)						
CMC					1	
OTHER						
Water hauling	54	miles	3	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)						
	HQWL	L56567G	1517			

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	B Lowrey	8	D Ferguson	8	W Stellan	8
B	C Anderson	8	W Bigler	8	J F Jenkins	8
C	K P Hall	8	L Berry	8	F Loder	8

Remarks: 5 1/2 hrs. Naval Test B. P. Pordip

LONGYEAR COMPANY

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"DAILY DRILL REPORT"

Contract: CHINA LAKE Date: 8 31 1983 Drill HD5001 33541 3356
 MONTH DAY TYPE DRILL NO. TRUCK NO.
 Location: COSO CAL Foreman's Signature: Darryl Lee Ferguson

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	<u>CGC TCH 74-2</u>	<u>90</u>										
Aft B	<u>CGC TCH 74-2</u>	<u>90</u>		<u>HQWL 1461</u>	<u>1464</u>				<u>3</u>	<u>3</u>		
Nite C	<u>CGC TCH 74-2</u>	<u>90</u>		<u>HQWL 1464</u>	<u>1486</u>				<u>22</u>	<u>22</u>		

Hourly Distribution		Day	Aft.	Nite	Supplies Consumed			
					Description	Size	Product Name	Number of Units
Core Drilling			<u>3</u>	<u>8</u>	Portland			
Handling Rod (change bit)		<u>2</u>	<u>4</u>		Lumnite			
Overburden - rock bit					Calseal			
Collaring Hole - Dia. bit					Mud	50#	<u>Nova</u>	<u>6</u>
Rotary Drilling					Mud	100#		<u>6</u>
Handling Rod (bit)					Other (Describe)			
Rock Bit - Overburden					<u>Rod Grease</u>			<u>2</u>
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			<u>①</u>					
Surveying, Inclination Test								
Mobilization/Demobilization								
Other (Explain) <u>NAVY TESTING</u>			<u>⑥</u>					
<u>CGC CASE</u>								
Total Hours		<u>8</u>	<u>8</u>	<u>8</u>				
Driller's Initials		<u>RF</u>	<u>CF</u>	<u>3/2</u>				

Shift	DRILLERS	Hrs.	HELPERS	Hrs.	TRUCK DRIVERS	Hrs.
A	<u>B. Langer</u>	<u>8</u>	<u>D. F. F. F. F.</u>	<u>8</u>	<u>W. S. S. S. S.</u>	<u>8</u>
B	<u>C. Anderson</u>	<u>8</u>	<u>W. B. B. B. B.</u>	<u>8</u>	<u>T. L. L. L. L.</u>	<u>8</u>
C	<u>R. L. Hall</u>	<u>8</u>	<u>L. B. B. B. B.</u>	<u>8</u>	<u>F. L. L. L. L.</u>	<u>8</u>

Remarks:

7 hrs. Day work
3 shifts 1170 Hauler

R. U. R. R. R.

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