

PRINT OR TYPE ONLY
 DO NOT WRITE ON BACK

WELL DRILLER'S REPORT

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. RECEIVED

1. OWNER HECLA MINING COMPANY ADDRESS AT WELL LOCATION Roschold Mine
 MAILING ADDRESS P.O. Box 1861 7000 Pitt Rd
Lowlock, NV 89419 Lowlock, NV 89417
 2. LOCATION 1/4 - 1/4 Sec. 24 T. 34 N/S R. 29 E Pershing County
 PERMIT NO. MD-843 Lot 3
 Issued by Water Resources Parcel No. Subdivision Name

3. WORK PERFORMED
 New Well Replace Recondition
 Deepen Abandon Other _____
 4. PROPOSED USE
 Domestic Irrigation Test
 Municipal/Industrial Monitor Stock
 5. WELL TYPE
 Cable Rotary RVC
 Air Other HSA

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thick-ness
<u>See Attached Log #</u>				
<u>GT-94-05</u>				
MAY 15 2:18 PM RECEIVED STATE ENGINEERS				

8. WELL CONSTRUCTION
 Depth Drilled 70.0 Feet Depth Cased 69.5 Feet
 HOLE DIAMETER (BIT SIZE)
 From 8.0 Inches To 70.0 Feet 0 Feet
 _____ Inches _____ Feet _____ Feet
 _____ Inches _____ Feet _____ Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
<u>2.0</u>	<u>0.70</u>	<u>Schedule 40 PVC</u>	<u>59.5</u>	<u>0</u>

Perforations:
 Type perforation Machine Slot
 Size perforation 0.020
 From 69.5 feet to 59.5 feet
 From _____ feet to _____ feet
 From _____ feet to _____ feet
 From _____ feet to _____ feet

Surface Seal: Yes No Seal Type:
 Depth of Seal 5.0 ft bags Neat Cement
 Placement Method: Pumped Cement Grout
 Poured Concrete Grout
 Gravel Packed: Yes No
 From 71.5 feet to 58 feet

9. WATER LEVEL
 Static water level 68.8 feet below land surface
 Artesian flow N/A G.P.M. N/A P.S.I.
 Water temperature N/A °F Quality N/A

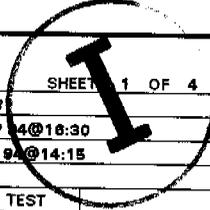
Date started 13 September 19 94
 Date completed 14 September 19 94

7. WELL TEST DATA

TEST METHOD:	<input type="checkbox"/> Bailer	<input type="checkbox"/> Pump	<input type="checkbox"/> Air Lift
G.P.M.	Draw Down (Feet Below Static)	Time (Hours)	
<u>N/A</u>			

10. DRILLER'S CERTIFICATION
 This well was drilled under my supervision and the report is true to the best of my knowledge.
 Name Brian Nance/Haz-Tech Drilling Inc.
 Address 3131 Lanark, Suite B
Meridian, ID 83642
 Nevada contractor's license number issued by the State Contractor's Board 0023-111
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller N/A
 Signed _____
 By driller performing actual drilling on site or contractor
 Date 5-11-95

GT-94-05



BOREHOLE NUMBER: **GT-94-05**
 BORING LOCATION: **N 2203363.987 / E 478703.924** Mill Facility: Northwest corner
 DRILLING CO.: **HAZ-TECH Drilling Inc.** DRILLER: **B. Nance** SURFACE ELEVATION: **5033.8**
 EQUIPMENT: **CME - 75 Super** DATE/TIME STARTED: **13 SEP 94@18:30**
 WATER DEPTH: **68.8** DATE/TIME OF DEPTH: **12-08-94/ 12:00** DATE/TIME FINISHED: **14 SEP 94@14:15**
 LOGGED BY: **M. Fairhurst**

ELEV. DEPTH	SOIL PROFILE SOIL DESCRIPTION	USCS CLASS	SAMPLES			DEPTH (UNITS)	STANDARD PENETRATION TEST 'N' BLOWS PER FOOT				WELL CONSTRUCTION				
			NO.	TYPE	BLOW COUNT/6"		20	40	60	80					
5033.7 0.1	Compact to Very dense, moderate yellowish brown (10YR 5/4), non-stratified, f-m SAND, some Silt, little to some f-c sub-angular Gravel (variety of clast types), trace Organics, dry-damp (COLLUVIUM?) (BADGER FORMATION)	SM	1	SPT	8 38 15	5.0	WATER CONTENT, PERCENT & RANGE				Top PVC elev: 5036.77' 				
5016.3 17.5	Very stiff, grayish red (10R 4/2), non-stratified, CLAY, noted slickensides, damp (TUFF) (CHOCOLATE FORMATION)	SM	2	SPT	9 11 8	10.0	WATER CONTENT, PERCENT & RANGE								
		SM	3	SPT	12 19 16	15.0	WATER CONTENT, PERCENT & RANGE								
						20.0	WATER CONTENT, PERCENT & RANGE								

WELL CONSTRUCTION DETAILS

CASED INTERVAL: 59.5'-0'	BENTONITE INTERVAL: 58.0-4.0'
CASING MATERIAL: Schedule 40 PVC	GROUT INTERVAL/TYPE: 4.0'-0'/Cement-bentonite
CASING DIAMETER: 2.0"	SCREENED INTERVAL: 69.5'-59.5'
FILTER INTERVAL/TYPE: 71.5-58'/8-20 Sand	SURFACE CASING WITH LOCK: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

DISCLAIMER: This log is not to be used separately from the engineering report.
 NOTE 1: See Cover Page For Legend And Soil Description Methodology NOTE 2: N/A

Project No.: 864	Design By: M. Fairhurst	Scale: 44:1
File: RSBUD	Drawn By: M. Fairhurst	Date: 6 February, 1995

Rosebud Project

TerraMatrix
 Engineering & Environmental Services
 1475 Pine Grove Road, P.O. Box 774019
 Steamboat Springs, Colorado 80477

Figure 5

HECLA MINING COMPANY

ACZE 12 APR 95

LOG 49482

GT-94-05

SHEET 2 OF 4

BOREHOLE NUMBER:		GT-94-05		SURFACE ELEVATION: 5033	
BORING LOCATION: N 2203383.987 / E 478703.924 Mill Facility: Northwest corner		DRILLER: E. Nance		DATE/TIME STARTED: 13 SEP 94@16:30	
DRILLING CO.: HAZ-TECH Drilling Inc.		EQUIPMENT: GME - 75 Super		DATE/TIME FINISHED: 14 SEP 94@14:15	
WATER DEPTH: 68.8		DATE/TIME OF DEPTH: 12-08-94/ 12:00		LOGGED BY: M. Fairhurst	

ELEV. DEPTH	SOIL PROFILE SOIL DESCRIPTION	USCS CLASS	SAMPLES			DEPTH (UNITS)	STANDARD PENETRATION TEST ▲ 'N' BLOWS PER FOOT					WELL CONSTRUCTION
			NO.	TYPE	BLOW COUNT/6"		20	40	60	80	WATER CONTENT, PERCENT & RANGE Wp Wn WL	
Feet	(Continued)					Feet						
5010.3 23.5	Very stiff to hard, grayish red (10R 4/2) with medium light gray (N6) Clay inclusions (from Tuff below), non-stratified, SILTY CLAY, trace fine Gravel, calcareous precipitate (WR) around some of the inclusions, damp (TUFF) (CHOCOLATE FORMATION)	CL-CH	4	SPT	8 13 16	25.0		▲				
		CL-CH	5	SPT	7 14 20			▲				
		CL-CH	6	SPT	30 33 49	30.0				▲		
5001.3 32.5	Hard, medium light gray (N6), non-stratified, SILTY CLAY and CLAYEY SILT, iron stained, approximately 5% of sample consists of biotite and pyrite crystals, damp (TUFF) (BUD FORMATION)	CL-CH	7	SPT	20 27 43	35.0				▲		
	Continued Next Page					40.0						

WELL CONSTRUCTION DETAILS

CASED INTERVAL: 59.5'-0	BENTONITE INTERVAL: 58.0-4.0'
CASING MATERIAL: Schedule 40 PVC	GROUT INTERVAL/TYPE: 4.0'-0/Cement-bentonite
CASING DIAMETER: 2.0"	SCREENED INTERVAL: 69.5'-59.5'
FILTER INTERVAL/TYPE: 71.5-58'/8-20 Sand	SURFACE CASING WITH LOCK: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

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Project No.: 864	Design By: M. Fairhurst	Scale: 44:1
File: RSBUD	Drawn By: M. Fairhurst	Date: 6 February, 1995

Rosebud Project

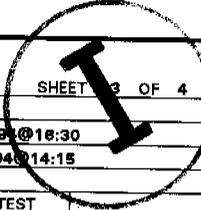


Figure 5

HECLA MINING COMPANY

ACZE 12 APR 95

log 49402



GT-94-05

BOREHOLE NUMBER: **GT-94-05**
 BORING LOCATION: **N 2203363.967 / E 478703.924 Mill Facility: Northwest corner**
 DRILLING CO.: **HAZ-TECH Drilling Inc.** DRILLER: **B. Nance** SURFACE ELEVATION: **5033.8** SHEET **3** OF **4**
 EQUIPMENT: **CME - 75 Super** DATE/TIME STARTED: **13 SEP 94 @ 16:30**
 WATER DEPTH: **68.8** DATE/TIME OF DEPTH: **12-06-94/ 12:00** DATE/TIME FINISHED: **14 SEP 94 @ 14:15**
 LOGGED BY: **M. Fairhurst**

ELEV. DEPTH	SOIL PROFILE	SAMPLES				DEPTH (UNITS)	STANDARD PENETRATION TEST ▲ 'N' BLOWS PER FOOT				WELL CONSTRUCTION
		USCS CLASS	NO.	TYPE	BLOW COUNT/6"		20	40	60	80	
Feet	(Continued)										
		CL-CH	8	SPT	19 50/5"						
						45.0					
		CL-CH	9	SPT	19 34 49					▲	
						50.0					
		CL-CH	10	SPT	25 34 50					▲	
						55.0					
		CL-CH	11	SPT	19 30 50/5"					▲	
						60.0					

Continued Next Page

WELL CONSTRUCTION DETAILS

CASED INTERVAL: 59.5'-0'	BENTONITE INTERVAL: 58.0-4.0'
CASING MATERIAL: Schedule 40 PVC	GROUT INTERVAL/TYPE: 4.0'-0'/Cement-bentonite
CASING DIAMETER: 2.0"	SCREENED INTERVAL: 69.5'-59.5'
FILTER INTERVAL/TYPE: 71.5-58'8-20 Sand	SURFACE CASING WITH LOCK: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

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NOTE 1: See Cover Page For Legend And Soil Description Methodology

Project No.: 864	Design By: M. Fairhurst	Scale: 44:1
File: RSBUD	Drawn By: M. Fairhurst	Date: 6 February, 1995

Rosebud Project

TerraMatrix
 Engineering & Environmental Services
 1476 Pine Grove Road, P.O. Box 774018
 Steamboat Springs, Colorado 80477

Figure 5

HECLA MINING COMPANY

ACZE 12 APR 95

GT-94-05

BOREHOLE NUMBER:		GT-94-05		SURFACE ELEVATION: 5033.6	
BORING LOCATION: N 2203363.967 / E 478703.824 Mill Facility: Northwest corner		DRILLER: B. Nance		DATE/TIME STARTED: 13 SEP 94	
DRILLING CO.: HAZ-TECH Drilling Inc.		EQUIPMENT: CME - 75 Super		DATE/TIME FINISHED: 14 SEP 94 @ 14:15	
WATER DEPTH: 68.8		DATE/TIME OF DEPTH: 12-08-94/ 12:00		LOGGED BY: M. Fairhurst	

ELEV. DEPTH	SOIL PROFILE DESCRIPTION	SAMPLES				DEPTH (UNITS)	STANDARD PENETRATION TEST ▲ 'N' BLOWS PER FOOT				WELL CONSTRUCTION	
		USCS CLASS	NO.	TYPE	BLOW COUNT/8"		20	40	60	80		
Feet	(Continued)											
		CL-CH	12	SPT	24 38 50/5''							▲
						65.0						
		CL-ML	13	SPT	22 40 45							▲
4962.3						70.0						
71.5	Bottom of Hole at 71.5'											

WELL CONSTRUCTION DETAILS

CASED INTERVAL: 59.5'-0'	BENTONITE INTERVAL: 58.0-4.0'
CASING MATERIAL: Schedule 40 PVC	GROUT INTERVAL/TYPE: 4.0'-0'/Cement-bentonite
CASING DIAMETER: 2.0"	SCREENED INTERVAL: 69.5'-59.5'
FILTER INTERVAL/TYPE: 71.5-58'/8-20 Sand	SURFACE CASING WITH LOCK: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
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Project No.: 864	Design By: M. Fairhurst	Scale: 44:1	<i>Rosebud Project</i>
File: RSBUD	Drawn By: M. Fairhurst	Date: 6 February, 1995	
TerraMatrix Engineering & Environmental Services 1476 Pine Grove Road, P.O. Box 774016 Steamboat Springs, Colorado 80477		<i>Figure 5</i>	HECLA MINING COMPANY

ACZE 12 APR 95