UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
MAY 28 1956

224 New Customhouse
Denver 2, Colorado

FINAL DISTRIBUTION
MADE MAY 24 1956

May 21, 1956

Memorandum

To: T. A. Christensen

From: Acting Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3989 (Uranium) Contract Idm-E933, Food Machinery and Chemical Corporation (Sec. 29, T 13 N, R 9 W) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of April, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations.

Remarks

Date of Report----------May 3, 1956
Date Received in Field Office---------- May 14, 1956
Date Received in Region Office--------- May 15, 1956

J. W. Townsend

J. W. Townsend

Enclosures
JDG:jy
cc: MF-104 File E933
Sec. Op. Comm. (2)
Shaw (2)
Chron.

RECEIVED
MAY 28 1956

Region III

Building 20
Denver Federal Center
Denver 2, Colorado
May 14, 1956

DMEA
Date Rec'd.
MAY 15 1956
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: W. D. McMillan
Through: John F. Shaw, Supv. Min. Engr.

Subject: DMEA Docket 3989 (Uranium) Contract Idm-8933, Food Machinery and Chemical Co., Westvaco Minerals Project Division, Section 29, T. 13 N., R. 9 W., N.M.P.M., McKinley County, New Mexico — Progress Report for April 1956.

Work on the subject contract was started on April 25, 1956, and an inspection of progress was made on May 2, 1956 accompanied by Russell Hayden, representative of Westvaco Minerals Project Division of Food Machinery and Chemical Company.

One hole was completed with one drill in April, and the data pertaining to this hole are given below:

Hole No.	Plug-Bit Feet	Core-Bit Feet	Total Feet
A-1	120	35	155

On May 4, 1956, a second drill was operating, and the applicant plans on adding another three drills. Work on the other two contracts of this company Idm-8932 and Idm-8934 will be resumed until completion of Idm-8933. Work done on these contracts consisting of the necessary surveying for the location of Stage I holes was started the middle of April and were inspected on May 2, 1956. The operator claimed 35 feet of core-bit drilling at $3.57 a foot ($124.95) and 120 feet of plug-bit drilling at $0.765 a feet ($91.80) and incidentals 155 feet at $0.18 per feet, ($27.90), a total of $244.65.

The contract cost for 35 feet core-bit drilling is $3.50 a feet or $122.50. Contract cost for plug-bit drilling of 120 feet is $1.25 a foot or $120.00, but the drill contractors invoice claimed only $0.75 a foot, or $90.00. The amount claimed for incidentals of 155 feet at $0.18 a foot or $27.90 is according to the contract. The corrected total approved is $240.40, a difference of $4.25 less than the amount claimed. (4.25 N.M. School tax is allowable)

It is recommended that 75 percent of the corrected total or $180.30 be approved for payment.

The drilling contractor's invoice, driller's log, radiometric log and section map are attached to each copy of the operator's report.

The progress report is highly satisfactory with complete copies of all the data and maps which few companies furnish us.

W. D. McMillan
Mining Engineer

enclosures

cc 6
IDM-5933
Chron.

WDM/sh

May 3, 1956

RECEIVED
MAY 28 1956

Mr. John F. Shaw
U. S. Bureau of Mines
Room 137, Building 20, Denver Federal Center
Denver 2, Colorado

Re: Progress Report
DMEA Docket No. 3989 (Uranium)
Contract Idm-E933
Food Machinery Chemical Corporation
Section 29, T. 13 N., R. 9 W.
McKinley County, New Mexico

Surveying of the proposed drill holes on Section 29, T. 13 N., R. 9 W., was started on April 23 and completed on April 27, 1956. All first stage drill holes have been surveyed in by transit and chain, and marked with a one inch by two inch survey stake bearing the co-ordinate number. The co-ordinates began with 00N. and 00E. at the southwest corner of Section 29. Elevations were leveled in and recorded. A base map for the section has been prepared showing location of the proposed holes, elevations of the collars, and co-ordinates. A second base map showing the location of the hole drilled during April, the total depth of the hole, and the depth of the top and bottom of the Todilto limestone.

Hole No. 100N. - 200E. was drilled to the depth of 155 feet. Twenty-five feet of Todilto limestone was cored from 120 to 145 feet and 10 feet of Entrada was also penetrated. The limestone appeared favorable from the standpoint of known criteria in that it was fractured and re-crystalized. It also contained considerable

amounts of fluorspar and calcite. The core was logged in detail, (see inset sheet) and stored at the field office in Grants, New Mexico for future reference. The hole was geologically logged and radiometrically probed. No count above normal background was encountered. An uninterrupted drilling program in accordance with the first stage of the contract is planned for May.

Respectfully submitted,

R. J. Hayden

R. J. Hayden, Project Engineer
Food Machinery Chemical Corporation
Westvaco Mineral Products Division
P.O. Box 250
Pocatello, Idaho

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
MAY 28 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of April, 1956 Docket No. DMEA 3989 Contract No. Idm-E933
Operator's Name Food Machinery & Chem. Corp. Westvaco Min. Products Div. Minerals Uranium
Address Box - 250 Pocatello, Idaho
Contract Amount, $ 91,908.00 Government Participation: 75 % Amount, $

ITEMS OF COSTS	FOR OPERATOR'S USE Costs: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	216.75		216.75			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify): Incidental allowance for each foot core & non-core	27.90		27.90			
TOTALS	244.65		244.65	244.65	—	244.65

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 5/3/56 *Payee Food Machinery Chemical Corp. Westvaco Mineral Products Division.

Per R. J. Hayden Title Project Engineer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

→ NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 183.49

Signature
(Authorized Certifying Officer)

Date 5/23/56 Vou. No. DMA 56-110

(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E933 in accordance with the terms of the contract.

Signature Wm McMillan (9 180.30) Title Mining Engr. Date May 14, 1956

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature J W Sonnenberg Title Acting Executive Officer Date MAY 21 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

RECEIVED
MAY 28 1956

Month of April 1956 Docket No. DMEA 3989 Contract No. Idm-E933
Operator's Name Food Mach. Chem. Corp. Westvaco Min. Dev. Minerals Uranium
Address P.O. 250 Pocatello, Idaho Division

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT Units	AUTHORIZED BY CONTRACT Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core Bit	per ft.	124.95	35	124.95	35	3.57	2415	3.50
plug Chum bit	per ft.	91.80	120	91.80	120	.76½	57390	1.25
Auger								
Stripping incidnetal	per ft.	27.90	155	27.90	155	7.48	59,805	.18
Trenching								
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		244.65	155	244.65				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								91,908.00
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Food Mach. & Chem Corp.
Westvaco Mineral Products
Date May 3, 1956 Operator Dvivision
Per R. J. Hayden Title Project Engineer

REMARKS: Incidental unit costs to date includes surveying of drill locations for all proposed first stage drill hole.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only)

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc.". The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

STATEMENT

DATE May 3, 1956 19

NAME Westvaco Mineral Products Co

ADDRESS Box 24, Star Route

Grants, New Mexico

RECEIVED MAY 28 1956

In Account With

Stewart Bros. & Parker

DRILLING CONTRACTORS

Phone ~~6-8143~~ AT7-4416 P. O. Box ~~2449~~ 154

~~ODESSA, TEXAS~~

~~Grants, New Mexico~~

	Amount
Exploration drilling on your Section 29 during April, 1956 as follows:	

Date	Hole No.	Plug	Core
4/30	1000/200	120	35

120 feet @ 75¢ per foot	$ 90.00
35 feet @ $3.50 per foot	122.50
	$212.50
2% N. M. School Tax	4.25
TOTAL	$216.75

THANKS

Stewart Bros & Parker

By C. A. Parker.

STEWART BROS. & PA[illegible]ER DRILLING CO.

Box 2449 Phone 6-6143

ODESSA, TEXAS

DRILL LOG

CLIENT Westvaco DATE Apr 30, 1956 19

PROPERTY Section 29 HOLE No. 1000/200

RIG No. 11 DRILLER Dave Harman

C.A.B.

FROM	TO	FORMATION AND REMARKS
0	80	Brown Sand
80	120	Red Shale & Sandstone
120	148	Limestone
148	155	Sandstone
	155	SHOW TD ON COMPLETION

PLUGGED FROM 0 TO 120

SAMPLED FROM 120 TO 155

CORED FROM 120 TO 155

STAND BY TIME (IF ANY)

(FOR OFFICE USE)

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1000 - 200	29 13-9	6786	1 2	1	April 30-56	Rhm

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
0	Qal			Blow sand			
80	Qal / Jb	ss.		Lt. red-brn. fn.-med. gr.			
		ss.		Lt. red-brn. fn.-med. gr.			
100							
	Jb / Jt	ss.		Lt. red-brn. fn.-med. gr. gn. vein lay. gell.			
		sh.		Lt. red-brn. very green (40% ss)			
120	Jt / Je	ss.		Lt. red-brn. fn.-med. gr. gn. vein lay. gell. crystals, calcite crystals abundant in seams, less quartz crystals, fn. carb. material.			
				see inset for core log			
140	Jt / Je	ss.		Lt. red-brn. fn.-med. gr.			
				see inset for core log			
160	TD 155						

Probe

Depth	Reading	Scale
THB	0	V
9	0	V
148	0	V
148		
TDP		
Caved 148-155'		

Scaler

Foot Interval	Assay

Graphic log

Description	Graphic log
BLOW SAND	
	Qal
	Jb
	Jb
	Jbar Js (?)
	Jt
	Jt
	Je
	Je
	TD Jss

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

0 20 40 60 80 100 120 140 160 180 200 220 240 260

.06 mr/hr

CORE

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
[illegible]	13-9	2 of 2	May 1, 1956	R.M.M.

Footage From	Footage To	Formation	Geology: Description	Samples
120	122.6	Jt.	ls. lt.-med. gy., dense, fractures have xtalline calcite, tr. flourite, qtz, carb. mat, limonite	
	122.6		stg to lt. s	
122.6	129	Jt.	ls. lt. med. gy. dense [illegible] fluorit (?) seams. tr. carb. mat	
129	129		fracture - schlickensides & re-crystallization	
129	130	Jt.	lt. - med. gy [illegible], highly fractured, re-crystallized, calcite xtals along fractures	
	130		tr. flourite (?) tr. lim. (?)	
130		Jt.	lt. - med. gy dense, layered (thin bedded - (.5 - 1 ft.) fractured - calcite crystals	
			along fractures, tr. carb. mat, tr. flourite. locally reddish-brown fracture planes.	
	140	Jt.	shows some solution channels (cavities)	
140	145		essentially same as 130-140, definite flourite	
145	155	Je	ss, lt red-brn fn-med. gr. tr. ls, tr. gn. clay galls	

Drawing No. [illegible]

Dma 56-126

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
REGION III

RECEIVED
JUL 2 - 1956

Administrative Audit Difference Statement

Food Machinery & Chemical Corp.
161 East 42nd Street
New York 17, New York

Date: June 26, 1956
Payee's Reference: May 1956

DMEA-3989

Gentlemen:

Upon examination of the above Payee's Reference a difference was found which made it necessary to suspend your account accordingly:

Amount Claimed	$ 20,244.70
Difference	$ 122.75
Amount Approved	$ 19,121.95

FINAL DISTRIBUTION MADE JUN 29 1956

The reason for the difference was due to:

Disallowances

Core Drilling

Claimed for May 952 ft. @ 3.57 ¢ per ft.	3,464.75	
Allowable cost for 952 ft at maximum allowable contract cost @ 3.50 (16 ft is disallowed for hole C-2. Claimed 40 ft. core-drilling whereas Driller's log shows only 24 ft) 3,332.00		
Amount to be disallowed		122.75
Amt. claimed for April 1956, 35 ft. @ 3.57	124.95	
Acceptable cost, 35 ft. @ 3.50 per ft.	122.50	
Amount to be disallowed		2.45
Total Core Drilling costs to be disallowed		125.21

(see attached sheet)

Any reclaim for deductions made above must be supported by the ORIGINAL of this form.

Very sincerely yours,

RRC

N. F. Stokes
Audit Section

Randel R. Cooper
Fiscal Officer, Region III

R-III-B & F Form No. 4
4-15-52 D

RECEIVED
JUL 2 ⁿ 1956

Non - Core Drilling:

1. Claimed 183 ft. drilling in hole A-7 whereas driller's log shows 173 ft. Disallow 10 ft. @ .75 per ft. 7.50

2. 3 hrs standby time is included in reported cost.., for non-core drilling. As there is no specific provision for stand-by time in contract, the following is considered to be a part of incidental allowance and is to be disallowed. 3 hrs standby time @ $12.00 36.00

3. Claimed the cost of one month water permit in the cost reported for non-core drilling. 94.64% as the acceptable footage reported is non core, therefore, only 94.64% of the cost of the water permit is acceptable. Amount to be disallowed 100.00 minus 94.64 - 5.36

4. New Mexico School Tax on the amount reported for core drilling is 67.76. Only 66.76 was reported. The difference of 1.00 was reported with the cost of non-core drilling and is therefore, to be disallowed - 1.00

Total non-core drilling costs to be disallowed 49.86

Incidental Allowance

10 ft. of non-core drilling and 16 ft. core drilling is disallowed in this report. Incidental allowance for this footage, 26 ft. @ 18 per ft. 4.68

Total amount to be disallowed 179.75

RRC

Randel R. Cooper
Fiscal Officer
Region III

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUL 2 - 1956

224 New Customhouse
Denver 2, Colorado

June 25, 1956

Memorandum

To: T. A. Christensen

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA Docket 3989 (Uranium) Contract Idm-E933, Food Machinery and Chemical Corporation (Sec. 29, T13N, R9W, NMPM) McKinley County, New Mexico - Operator's Monthly Progress Report for the month of May, 1956

Enclosed are the original and four copies each of Forms MF-104 and MF-104A, Narrative Report, and Engineer's Report for the above period.

It is deemed that the Operator has complied with the intent of the contract, and the work for which payment is recommended is acceptable to the Government. Payment is recommended for 75 percent of the amount as reported on Form MF-104, contingent on your verification of the correctness of applicable rates and arithmetical accuracy of computations, except for the following deductions.

DISALLOWANCES

Core drilling

Amount reported by Operator on Form MF-104 for the month of May, 1956, 968 feet at $3.57+ per foot----------$3,454.76
Allowable cost for 952 feet at the maximum allowable contract cost of $3.50 per foot. (16 feet is disallowed for hole C-2. The Operator reports 40 feet core whereas the driller's log shows only 24 feet)---------- 3,332.00
Amount to be disallowed----------$ 122.76

Amount reported by Operator on Form MF-104 for April, 1956, 35 feet at $3.57----------$124.95
Acceptable cost, 35 feet at $3.50 per feet----------122.50
Amount to be disallowed----------$2.45*

Total core drilling cost to be disallowed----------$ 125.21

*This amount should have been, but was not disallowed from the April, 1956 voucher. Therefore, the disallowance is made herewith.

Non-core drilling

A review of the documentation for non-core drilling indicates that the following disallowances are in order:

1. Ten feet of non-core drilling reported for hole No. A-7 is disallowed. The Operator reports 183 feet of non-core drilling in this hole, whereas the driller's log shows only 173 feet.
Disallow 10 feet at $0.75 per foot----------$7.50

2. 3 hours standby time is included in the reported cost for non-core drilling. As there is no specific provision in the contract for standby time, the following amount is considered to be a part of the incidental allowance and is to be disallowed.
Disallow 3 hours standby time at $12.00 per hour----------36.00

3. The Operator has included the cost of one month water permit in the cost reported for non-core drilling. 94.64 percent of the acceptable footage reported is non core, therefore, only 94.64 percent of the cost of the water permit is acceptable.

Amount to be disallowed, $100.00
minus $94.64----------5.36

4. New Mexico School Tax on the amount reported for core drilling is $67.76. The Operator reported only $66.76. The difference of $1.00 was reported with the cost of non-core drilling and is, therefore, to be disallowed----------1.00

Total non-core drilling costs to be disallowed----------$49.86

Incidental Allowance

Ten feet of non-core drilling and sixteen feet of core drilling is disallowed this report. Incidental allowance for this footage, 26 feet at $0.18 per feet is disallowed---------- 4.68

Total amount disallowed---------- $ 179.75

Reconciliation with Amount Reported on Form MF-104 for May, 1956

Amount reported by Operator----------		$19,844.70
Disallowances:		
Core drilling----------	$125.21	
Non-core drilling----------	49.86	
Incidental allowance----------	4.68	
		179.75
Total Accepted Cost----------		$ 19,664.95
Government Participation at 75 Percent------		$ 14,748.71

Note: In addition to the disallowances listed above, the inspecting engineer recommends that 30 feet of core drilling be disallowed in hole C-11. However, a check of the Operator's records and the driller's log for the hole shows the footage reported to be correct, and therefore acceptable. Hole C-12 was also checked and found to be properly reported by the Operator.

Remarks

Date of Report----------June 2, 1956
Date Received in Field Office---------- June 13, 1956
Date Received in Region Office---------- June 20, 1956

W. M. TRAVER

W. M. Traver

Enclosures

JDC:jy
cc: MF-104 File E933
Sec. Op. Comms. (2)
Shaw (2)
Townsend w/copy mgr's report
Chron.

RECEIVED
JUL 2 - 1956

DMEA
Date Rec'd.

REGION III

JUN 20 1956

BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
June 19, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: John F. Shaw
Supervising Mining Engineer

From: W. D. McMillan

Subject: Docket DMEA 3989, (Uranium) Contract 16m-8933,
Food Machinery and Chemical Company
Westvaco Mineral Products Division,
Sec. 29, T. 13 N., R. 9 W., NMPM, McKinley County, New Mexico --
Progress report for May, 1956

Progress was checked on June 6, 1956 in company with Russel J. Hayden, Superintendent for the applicant.

During May a total of 57 holes were completed on north-south lines with 29 holes on the 200 foot east coordinate, 19 holes on the 1000 foot east coordinate, and 9 holes on the 1800 foot coordinate at the locations specified in the contract on Stage I. Some of the specified holes on these lines were not drilled. Exploration on June 6 had been started on the intervening 400 foot lines and the lines in the western part of the section.

In the narrative part of the report the applicant submitted a table showing the location of the holes with total depth and the footages cored in 29 of the 57 holes. Slight mineralization was reported in 9 of the core holes.

The operator's total for the total depths of the holes was 17,910 feet and for the footage cored 968 feet.

A check of Stewart Bros. and Parker Drilling Company logs showed the following discrepancies.
Hole 1800-200- 203 feet instead of 213 feet
Hole 4400-200- Core bit drilling of 40 feet is for Hole 4200-200
Hole 200-1000- Core bit drilling of 40 feet should be 26 feet according to drill log
Hole 2200-100- Reported core bit drilling of 30 feet not shown on drill log

These discrepancies in reported core bit drilling and the drill logs amount to 44 feet. The approved core bit drilling is, therefore, 924 feet.

The difference between the total corrected footage of 17,900 feet and the approved core bit drilling of 924 feet is 16,876 feet, which is approved for plug bit drilling although the contractor claims 16,942 feet, a difference of 66 feet.

Approved costs for May are for 16,876 feet of plug bit drilling at $0.77 a foot ($13,112.65), 924 feet of core bit drilling at $3.50 a foot ($3,234.00), and for incidentals 17,800 feet at $0.18 a foot, ($3,204.00), with a total of $19,550.00.

Government participation at 75 percent would be $14,662.99.

A map showing the location of all holes drilled to the end of May, Stewart Bros. and Parker's statement for May, 1956, geologic logs are with each copy.

Copies of the drill logs are being retained in this office.

W. D. McMillan
Mining Engineer

WDM/mr
cc: 6
Idm-1933
Chron

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

RECEIVED
JUL 2 - 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of May, 1956 Docket No. DMEA 3989 Contract No. Idm-E933
Operator's Name Food Machinery & Chem. Corp. (Westvaco Min. Prod. Div.) Minerals Uranium
Address P.O. Box 250 Pocatello, Idaho
Contract Amount, $91,908.00 Government Participation: 75 % Amount, $

ITEMS OF COSTS	FOR OPERATOR'S USE			FOR GOVERNMENT USE ONLY		
	Monthly Total	Totals Previously Reported	Totals To Date	Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling	16,620.90	216.75	16,837.65			
Bulldozing						
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
Incidental Allowance per foot of core & non-core @ $.18	3223.80	27.90	3251.70			
TOTALS	19844.70	244.65	20,089.35	19,664.95	244.65	19,909.60

I certify that the above bill is correct and just and that payment therefor has not been received.

Date June 2, 1956 *Payee Food Machinery & Chem. Corp. Westvaco Min. Prod. Div.

Per R. J. Hayden Title Project Engineer

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$14,748.71

Signature RRa
(Authorized Certifying Officer)

Date 6/26/56 Vou. No. DMA-56-126
(See other side)

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. Idm-E933 in accordance with the terms of the contract.

Signature W. C. McMillan [$14,662.99] Title Eng. Engr. Date 6/15/56

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature [illegible] Title Executive Officer Date JUN 25 1956

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(a) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(b) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(c) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

RECEIVED
JUL 2 - 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of May 1956 Docket No. DMEA 3989 Contract No. Idm-E933
Operator's Name Food Mach. & Chemical Corp. (Westvaco Min. Minerals Uranium
Address P.O. Box - 250 Pocatello, Idaho (Dev. Div.)

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core	per ft.	3454.76	968	3,579.71	1003	3.57	2415	3.50
plug ~~Churn~~ bit	per ft	13,166.14	16,942	13,257.94	17,062	.777	57,390	1.25
Auger								
~~Stripping~~ Incidental	per ft.	3223.80	17,910	3251.70	18,065	.18	59,805	.18
Trenching								
Test Pits								
Roads and Trails								
Total Distributed Costs		19,844.70		20,089.35				Total Costs Authorized by Contract
Operating Equipment Purchased								91,908.00
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
Total Costs								

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this report is correct and complete to the best of their knowledge and belief.

Date June 2, 1956 Operator Food Machinery Chem. Corp. Westvaco Min. Products. Div.

Per R. J. Hayden Title Project Engineer

REMARKS:

NOTE.—Title 18, U. S. Code (Crimes), section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

(Instructions on reverse)

(For Government use only) W. McMullen

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

June 2, 1956

RECEIVED
JUL 2 - 1956

Mr. John F. Shaw
U. S. Bureau of Mines
Room 137, Building 20
Denver Federal Center
Denver 2, Colorado

Re: Progress Report
DMEA Docket No. 3989 (Uranium)
Contract Idm-E933
Food Machinery & Chemical Corp.
Section 29, T. 13 N., R. 9 W.

An uninterrupted drilling program continued through the month. A total of 57 holes was drilled, logged geologically and radiometrically, the samples are labled and stored. For data on these holes see map 936-A. Shown on this map are depths of the top and bottom of the Todilto limestone, (the ore horizon in this area), total depths of the holes drilled, and whether or not mineralization was encountered. For detail of these holes see the log sheets enclosed. For those holes in which the limestone was cored an inset sheet accompanies each geologic log. This inset sheet gives a detailed description of the drill core.

A structure contour map of the base of the Todilto limestone is being constructed and a detailed cross section of each north-south row of drill holes is being drawn as the drilling progresses. One such cross section accompanies this report for the 200 east line. This is the only line completed to date.

Also a complete general information map is being prepared similar to the monthly progress map. (Drawing No. 936-A)

Items of geologic interest thus far encountered by drilling are mineralization associated with fluorite and recrystallization of fractured limestone. A small roll and thickening in the vicinity of 3400 to 3600 north 200 east is indicated by the cross section. The features mentioned above will be more fully understood as to their relationship to possible ore deposits as stage one of the drilling program progresses.

No samples were submitted for chemical analyses during the month as those samples checked by radiometric equivalent did not give results of a magnitude that would justify chemical assaying.

The following holes were completed during the month of May 1956. Detailed information of the following table may be found in the geologic logs accompanying this report.

Hole Co-ordinate	Total Depth	Feet Cored	Feet Sampled	Mineralization
1100-200	165		28	
1200-200	160	30		
1300-200	175	30		slight
1400-200	180	30		
1600-200	210		30	
1800-200	213	30		
2000-200	230		30	
2200-200	250	40		slight
2400-200	290		20	slight
2600-200	283	40		
2800-200	310		30	
2900-200	330	30		
3000-200	350		30	

Hole Co-ordinate	Total Depth	Feet Cored	Feet Sampled	Mineralization
3100-200	345	40		
3200-200	366		24	slight
3300-200	357	30		slight
3400-200	365		40	
3500-200	370	40		slight
3600-200	380		30	
3700-200	378	30		slight
3800-200	395		30	
3900-200	400	40		
4000-200	415		30	
4200-200	437			
4400-200	460	40		
4600-200	470		30	
4800-200	496	30		
5000-200	535		30	
200-1000	178		22	slight
400-1000	180	40		
600-1000	204		30	
800-1000	207	23		
1000-1000	226		24	
1200-1000	237	35		
1400-1000	254		26	
1600-1000	260	28		
1800-1000	290		32	
2000-1000	295	30		
2200-1000	320		40	
2400-1000	333	30		
2600-1000	350		30	
2800-1000	370	30		
3000-1000	400		24	
3200-1000	401	40		
3400-1000	425		24	slight
3600-1000	431	29		
3800-1000	457		32	
200-1800	190		22	
800-1800	214		20	
1000-1800	225	23		
1200-1800	245		22	
1400-1800	263	30		
1800-1800	308	30		
2200-1800	345	30		
2600-1800	374	30		
3000-1800	406	30		
600-1800	207	30		
Total	17,910	968	760	

Sixty-two drill days were required to complete the 57 holes. Considerable difficulty was encountered in drilling hole number 5000-200 due to lost circulation. All holes are being drilled wet through the blow sand in order to make the walls stand. The ore horizon is drilled dry whenever possible. In the southeast portion of the area ground water was great enough to require wet drilling through the ore horizon.

A total of 17,910 feet was drilled at an average direct drilling cost of $.928 per foot, of which 16,942 feet was plug drilling and 968 feet was core drilling.

An uninterrupted drilling program is expected to continue in compliance with this contract throughout the coming month.

Respectfully submitted,

R. J. Hayden

R. J. Hayden, Project Engineer
Food Machinery & Chemical Corp.
Westvaco Mineral Products
P. O. Box 250
Pocatello, Idaho

STATEMENT

DATE June 2, 1956 10

NAME Westvaco Mineral Products

ADDRESS Box 24, Star Route

Grants, New Mexico

In Account With

Stewart Bros. & Parker

DRILLING CONTRACTORS

Phone [redacted] AT7-4416 P. O. Box [redacted] 154

[redacted]

[redacted] County, New Mexico

		Amount
Exploration drilling during May, 1956 as follows:		
Rig #5 Section 29		
3,234 feet @ 75¢ per foot	$2,425.50	
66 feet @ 90¢ per foot	59.40	
200 feet core @ $3.50 per foot	700.00	
1½ hours standby time @ $12.00 per hour	18.00	$ 3,202.90
Rig #7 Section 29		
5,843 feet @ 75¢ per foot	$4,382.25	
2 feet @ 80¢ per foot	1.60	
685 feet core @ $3.50 per foot	2,397.50	6,781.55
Rig #11 Section 29		
7,435 feet @ 75¢ per foot	$5,576.25	
362 feet @ 90¢ per foot	325.80	
83 feet core @ $3.50 per foot	290.50	
1½ hours standby time @ $3.50 per hour	18.00	6,210.55
One Month Water Permit		100.00
		$16,295.00
2% New Mexico School Tax		325.90
TOTAL		$16,620.90

THANKS

STEWART BROS. & PARKER

By [signature]
N. H. Stewart, Partner

Hole No	Sec	Elevation	Page of	Pages	No. Insets	Date	Logged by
200-1800 E-1	29 / 13:9	6750	1	1	0	5/30/56	R.M.M.

Geology: Woody, Rig 5

Footage | Type of Rock | Formation | Color | Description | Surface Geology | Geology | Sample | Probe Reading | Probe Scale | Scaler Fahrenheit | Scaler Assay Foot | Graphic Log | Description | Dotted line Graphic Assay Solid Line - Probe (0% … 60%)

0 — blow sand

THB .01 mr/hr.
.01 mr/hr
190' .01 mr/hr

20

40

60

Qal — ss. ltgy fn-med gr. argill

80

100 — Jb / Js — sh. red-brn. aren.

120

140 — Js — sh. white aren. calc. (made H_2O, 4 gals. p.m. might be a well)

160 — Jt — ls. dk.gy argill, thin bedded, muddy, sltly re-xtallized aren.
ls. dk.gy argill, thin, shaly bedded, streaks of red. sh.
ls. dk.gy-black. shaly, thin bedded, sltly re-xtallized

.03 mr/hr. blkd.
.03 mr/hr
21 wet cuttings samples

180 — Jt — ls. dk.gy argill, shaly-thin bedded, sltly re-xtalized, red & gn. sh.
Je — ss. red-brn fn-med. gr.

TD 190

200

220

240

260

Graphic Log: Qal — Blow Sand; Jb; Jb / Js; Js / Jt; Jt / Je; TD 290-

Hole No	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
600-1800 E2	13-9 29	6754	1 / 2	1	5-31-56	DB

Geology

Taylor Rig #7

Elevation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0							T.H.B	.62	NN				
20							207	.02					
40			blow sand										
60	Qal / Jb											Qal / Jb	
80			ss red fn. med grain										
100	Jb ?? / JS											Jb ?? / JS	
120			sh red arenaceous										
140													
160													
180	JS / Jt		ls ltgy arenaceous shaly ls ltmoogy sdly macrocrystalline cd	see insert for core log	← no count →	← core →						JS / Jt	
200	Jt / Je		ls med gy brn seams brown muddy material									Jt / Je	
	TD	207'										TD 207'	
220													
240													
260													

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
600 -1800	13-9 29	2 2	5-25-	DB

Footage From	Footage To	Formation	Geology Description	Samples
177	180.5	Jt	ls. lt.med. gy arenaceous shaly traces blk. carbonaceous material	
180.5	182.5	Jt.	ls brn. gy dense st.ly recrystillized	
182.5	183	Jt.	ls lt.brn.gy dense crenulated bedding	
183	187	Jt.	ls. lt.med.gy. thin crenulated bedding arenaceous seams	
187	188	Jt	ls lt.med.gy brn. very thin crenulated bedding st.ly recrystillized	
188	191	Jt	ls lt.med gy brn very dense	
191	198.3	Jt	ls dk.gy dkbrn. massive very hard seams brn. muddy material	
198.3	207	Je	ss lt.gy. brn. red fn. med. grain st.ly calcareous	

Hole No.	Sec.	Elevation	Page of	Pages	No. Insets	Date	Logged by
800-1800 E-3	29 13-9	6753	1	1	0	May 21, 1956	R. Wm.

Geology

Woody, Rig 5

Footage	Formation	Top of Rock	Color	Description	Cuttings	Geiger	Cosmic Features	Probe Depth	Probe Reading	Scale	Scaler Interval 100'	Assay	Graphic log	Description
0				blow sand.				THB 0 7 214 TDP 214'	01 01					
60	Qal / Jb		ss.	lt. gy	fn - med-gr. argill								Qal / Jb	
100			ss	brn.	fn. med. gr.									
120	Jb / Js		sh.	red-brn.	fn aren, streaks of brn, wat ss.								Jb ? ? ? Js.	
200	Js / Jt.		sh.	brn.	aren, calc.		.03 m v/ft.						Js / Jt	
			ls.	red-lt. gy	aren, shaly, altly re-crystallized, looks water-washed		.03 m v/ft.							
			ls.	lt. gy-brn	shaly, muddy, no apparent re-crystallization									
220	Jt / Je TD 214		ss.	fn-med-gr.	red-brn.								Jt / Je Actual TD 214.5	

Note: This hole made water at the rate of 7.5 g.p.m. from 194'-202'-

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 40%

Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
1000-1800 E-4	29 13-9	6751	1 of 2	1	5/2/86	RDM

Geology — Taylor, Rig 7

Footage	Formation	Underground Work	Color	Description	Fractures	Core Loss	Core Gain	Probe Data	Probe Reading	Scale	Scaler Reading	Assay	Geologic Log	Geochemistry	Dotted line Graphic Assay Solid Line - Probe (0% … 60)
0	Qal			blow sand.				THB	.01	mr/hr					
								O	.01	"					
								V	V	"					
								225	.01	"					
20															
40															
60	Qal / Jb	ss	rd-brn.	fn-med-gr.									Qal / Jb		
80															
100	Jb / Js	sh.	red-brn.	streaks of brn-ss, cremcale.									Jb / Js		
120															
140															
160															
180									.05 mr/hr						
200	Js / Jt	ss.	wht.	fn-med-gr. argill, calc.									Js / Jt		
		ls.	~~stly~~ med-gy	s. lt/gy ro-xtalline					.05 mr/hr						
				see inset for core log.											
220		ls.	med-dk-gy	shaly											
	Jt / Je / TD 225	ss	pink	fn-med-gy.									Jt / Je / TD 225		
240															
260															

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1000-18 E-4	27 T-9	1 3	5/20/55	RMM

Footage From	Footage To	Formation	Geology Description	Samples
203	204	Jt.	ls, lt. gray, aren, re-crystallized (SOS)	
204	210	Jt	ls, dk. gy, thin, crenulated bedding, shaly, 45% re-crystallized to flourite, calcite	
210	216.5	Jt	ls, dense, dk. gy-brn thin bedded, ~~sty~~ muddy.	
216.5	216.7	Jt.	ls, re-crystallized to calcite, tr. flourite	
216.7	223	Jt	same as 210-216.5	
223	224	Jc	ss, purple, fn. med gr.	
224	225	Jc	ss, red-purple, thin bands fn. med. gr.	

Drawing No. 793

Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
1200-1800 E-5	29 139	6751	1 of 1	0	4/31/56	Rumm

Footage	Formation	Age & Type	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval Foot	Assay	Graphic log	Description
0	Qal			blow sand				THB 0	.04	mv/hr.				Collar Qal
								7	.04					
								153	.04					
								153½	.03					
								176	.03					
								177	.02					
20								218	.02					
								219	.03					
								237	.03					
								237						
								241	.03					
40								Top 241						
60	Qal / Jb	ss.	gy.	f.m.-med.gr.										Qal / Jb
80	Jb / Js	sh.	red-brn.	green, calc. towards base, st-cakes of wet brn. ss & gn. sh.										Jb / Js
100														
120														
140														
160														
180														
200														
220	Js / Jt	sh.	lt gy	calc. green.										Js / Jt
		ls.	med-gy-bro	80% ve-crystallized, thin, bedded. tr. flourite, abund wkt. calc. xtals.										
		ls.	dk gy bro	20% ve-xtal. thin bedded, muddy,										
		ls.	dk gy to blk	slt (-10%) ve-xtal. muddy, thin bedded										
240	Jt / Je	ls.	dk. gy-bro	dense, hard, thick bedded, very slt ve-crystallization										Jt / Je
	TD 245													TD 245

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

.03 mr/hr. blended

.03 mr/hr.

2' wet cuttings samples

Hole No.	Sec.	Elevation	Page of Pages	No Insets	Date	Logged by
14000-1800 E-6	29, 13-9	675S.	1 of 3	1	5-29-56	BB

Geology: Woody Rig B

Footage	Formation	Lbs. or Rock	Color	Description	Core Footage	Core Recovery	Samples	Probe Depth	Probe Reading	Scale	Scaler Interval Foot	Assay	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe (0% … 100%)
0	Qd			Blow sand				THB 0 to 259	.01 .01 .01	mv/hr mv/hr mv/hr					
20															
40	Qal			ss. grey fn - med. gr. angill.									Qal / Jb		
60															
80															
100	Jb / Js			sh, red-brn, green, calc. toward base, streaks of gn sh & brn wet ss.									? Jb ? / Js		
120															
140															
160															
180															
200															
220															
240	Js / Jt			sh. lt. gy even, very calc. lc. siltly recrystallized, med-dk. gy thin bedded. see inset for core log.		No Core / Cored							Js / Jt		
260	Jt / Je			rd-brn. fn - med. gr.									Jt / Je		

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1400-1800 E6	29 / 13-9	6755	2 / 3	2	5/29/56	Rumn

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval Foot	Scaler Assay	Graphic log	Description
260	Je TD 263	ss.	red-brn.	fa-med.gr.		n.c.	cored							

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

260 280 40 60 80 100 120 140 160 180 200

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1400-1800 E-6	29 13-9	3 3	5/29/56	RMM.

Footage From	Footage To	Formation	Geology: Description	Samples
233	241	Jt.	ls. med-dk.gy, thin, crenulated, bedding, 75% re-xtalized, recent vert. fractures, tr. FeS	
241	247	Jt.	ls. massive, dk.gy-brn. sltly. re-xtallized, muddy.	
247	247.4	Jt.	ls. re-crystallized to calcite	
247.4	255	Jt.	ls. dk.gy to black, massive, very hard.	
255	256	Je	ss, purple, fn-med.gr	
256	263	Je	ss, red-brn. fn-med.gr.	

1800-1860 13-9 29 1 3 1 5-29-56 DB

Taylor Rig #7

T.H.B. 01 alt

305-01

Blow Sand

Qal / Jb

SS wht. brn. fn. med grain

Jb / Js

SS wht. fn. med grain

Sh red streaks of wht. sand

Qal / Jb

Jb / Js

20 40 60 80 100 120 140 160 180 200 220 240

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1800-1860	13-9 29		2 3	1	5-29-56	DB

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval	Scaler Foot	Scaler Assay	Graphic log	Description
260 0															
280 20	US														US
	Jt	ls.	med. gy	crenulated, thin bedded sl fine-xtal see inset for cuttings		.03 mr/hr	core								Jt
		ls.	dk gy brn	thin bedded											
300 40	Jt														Jt
	Je	ss	red	fn. med grain											Je
	TD 308'														TD 308'
320 60															
80															
100															
120															
140															
160															
180															
200															
220															
240															
260															

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1800-1800	29 13-9	3 3	5/29/56	Remin.

Footage From	Footage To	Formation	Geology: Description	Samples
			Willie, Rig 7	
278	284	dt	ls. med. dk. gy - fn - fn. bedded, irreg, crenulated, slitly re-crystalized, abund clay partings	
284	297	dt	ls. dk. gy brn. thin bedded, ~~[illegible]~~, slight re-crystallization, few calc. healed fractures	
297	297.8	de	ss, purple, fn - med. gr.	
297.8		de	ss, red-brn, thin yel & gn streaks, fn - med. gr.	

Hole No.	Sec	Elevation	Page of	Pages	No Insets	Date	Logged by
2200-1900 E10	13-9 29	6805	1	3	1	5-28-56	DB

Geology

Taylor Rig #7

Footage	Formation	Lithologic Rock	Color	Description	Geology	Probe Reading	Scale	Scaler Interval	Assay	Graphic Log	Description	Dotted Line Graphic Assay Solid Line - Probe 0% 20% 60%
0	Qal			blow sand		T.H.B. 0	.01				Qal Jb	
20						343	.01					
40		ss		lenticular fn. med grain			.01					
60												
80												
100												
120												
140												
160	Jb 22 Js										Jb ? Js	
180		sh	red brn.	arenaceous limy								
200												
220												
240												

Hole No.	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
2200-1800 E-10	13-9 29	6805	2 / 3	1	5-28-56	PD

Geology

Probe: Depth, Reading, Scale

Scaler: Interval FOO, Assay

Footage | Formation | Type of Rock | Color | Description | Features | Occurrence | Geiger | Tenor | Samples | Graphic log | Description | Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

Footage	Formation	Type of Rock	Color	Description
320	JS	ls	lt gy	very recrystillized
	JT	ls	lt gy brn	very dense stly recrystillized
		ls	lt gy brn.	stly recrystillized
340	JT	ls	lt gy	stly recrystillized arenaceous
	Je	ss	lt red brn	
	TD 345'			

See insert for core log.

.05 m/hr

.05 m/hr

Core

Graphic log: JS, JT, Je, TD 345'

280 300 320 340 360 100 120 140 160 180 200 220 240 260

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
2200-1800 E-10	29/13-9	3 3	5-28-56	R.M.M.

Footage From	Footage To	Formation	Geology: Description	Samples
315	321	Jt.	ls., lt-med.gy, crenulated bedding, shaly, vert. fracture, lined w/crystals of calcite, re-crystallized.	
321	325.5	Jt.	ls, med-dk.gy-bro., sltly re-crystallized, thin, irreg. bedding.	
325.5	325.7	Jt.	ls, re-crystallized to calcite	
325.7	330	Jt.	same as 321-325.5	
330	330.2	Jt.	~~330~~ same as 325.5-325.7	
330.2	334	Jt.	same as 321-325.5 - small, black rosettes or dendrites of Mn?(F)? C? at 333.6-334. area	
334	334.8	Je	ss, purple, fn-med.gr.	
334.8	338.3	Je	ss, gy-red, fn-med-gr.	
338.3	345	Je	ss, red-brn. fn-med.gr.	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2600-1800 E-14	29 13-9	6840	1 3	1	5/2-3/56	R. M. M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Depth	Reading	Scale	Foot Interval	Assay	Graphic log	Description
0	Qal			blow sand										Qal
	Jb.	ss	lt. gy	f-m-crs. gr.										
20														
40														
60														
80														
100		ss	white ~~red-brn.~~	f-m-crs. gr. loose										
		ss.	brn.	f-m-crs. gr. wet										
120														
140														
160														
180														
	Js	sh	red-brn.	carb. calc. streaks of red & gr. sh.										
200														
220														
240														
260														

Probe

Scaler

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2600-1800 E-14	29 13-9	6840	2 3	1	5/25/56	R. Mann

Driller: Taylor, Rig 7

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic Log	Description
260	Jb	sh.	red-brn	Com. calc. toward base, streaks of brn wxt-ss, & gn. sh.				THB	.001	mr/hr.				
								0	.001	mr/hr				
								343	.001	mr/hr.				
								344	.002					
								365	.002					
280								366	.001					
								369.8	.001					
								TDP 369.8						
300														
320														
340	Js	ss	lt gy	shaly, fn-med-gr. calc										
	Jt	ls.	med-dkgy	re-crystallized										
		ls	med-dkgy	sltly re-crystallized										
360				See inset for core log										
	Jt													
	Je	ss.	red-brn.	fn-med-gr.										
380	TD 374													
400														
160														
180														
200														
220														
240														
260														

Dotted line Graphic Assay Solid Line - Probe

0% .20% .60

Transition

Js

Jt

Jt

Je

TD 374

cored

drilled

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
2600-1800 E-14	29 18-9	3 3	5/20/56	EMM

Footage From	Footage To	Formation	Geology: Description	Samples
344	348	Je	ss, wht, calc, fn-med.gr. muddy. transition Je Jt.	
348	350	Jt	ls, med-dk.gy, 75% are - xtall, thin, irreg. bedding	
350	356	Jt	ls, " " " crenulated " vert fractures w/calcite rhombs along fractures	
356		Jt.	ls. dk.gy-black, thin, irreg bedding, muddy, trashy, slip planes, calcite nodules at	
	368		360 and 3 6 ft,	
368	368.8	Je	ss, purple, fn-med.gr.	
368.8	374	Je	ss, red-brn & gy banded, fn-med.gr.	

Hole No	Sec.	Elevation	Page of	Pages	No Insets	Date	Logged by
3000-1800	29 13-9		1	3	1	5/30/56	R.M.M.

Geology

Willie Taylor.
Rig 7.

Description

Footage | Formation | Lithologic Rock | Color | Description | Lithologic Features | Geologic Age | Sample Number | Probe Reading | Scaler Interval | Scaler Assay | Graphic Log | Description

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

0 — blow sand

20

Qal
Jb — ss. lt.gy fn-med-gr. ss.

40

60

80

100

120 — ss. brn. fn-med-gr.

140

160

Jb
Js — sh. red-brn. arem. streaks of brn. wet ss.

180

200

220

240

260

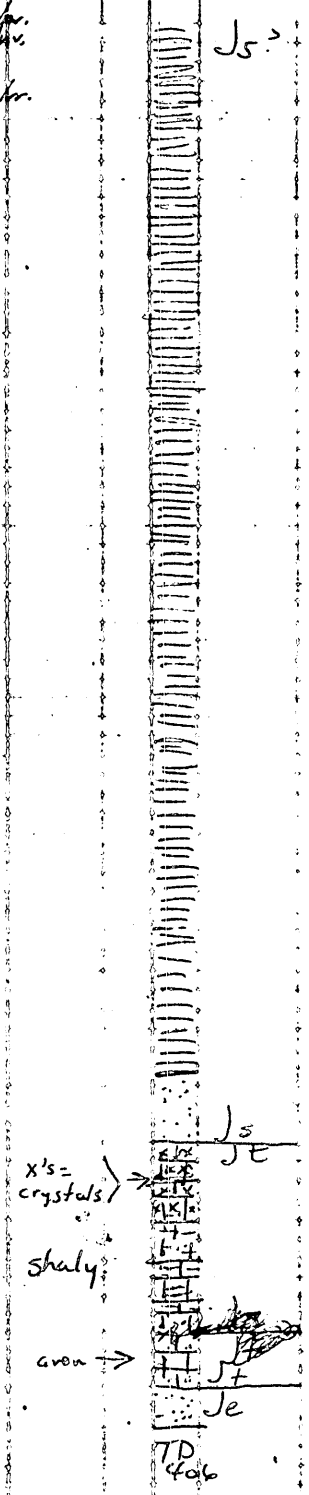
Qal
Jb

Jb
Js

Hole No.	Sec.	Elevation	Page of	Pages	No. Insets	Date	Logged by
3000-1800	29 13-9		1	3	1	4/30/56	R.M.M.

Footage	Formation	Type of Rock	Color	Description	Features	Radioactivity	Sample	Probe Depth	Probe Reading	Scale	Scaler Interval	Scaler Foot	Assay	Graphic log	Description
260		sh.	variegated	green, streaks of gn. sh & brnss.				.DHB 0 404	.01 .01 .01	mv/hr. mv/hr. mv/hr.					Js
280															
300															
320															
340															
360															
380	Js / Jt	ss.	lt-gy	fn-med.gr. argill, calcareous.			.02 mv/hr. bkgnd								
		ls.	~~dk-gy~~	almost completely recrystalized see inset for core log			.02 mv/hr.	core							
400	Jt	ls.	med-dk gy	shaly, blthly re-crystallized											
	Je	ss.	red-brn	fn-med.gr. over.											
420	TD 406														

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60



Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
3000-1800	29 13-9	3 3	5/30/56	R.M.M.

Footage From	Footage To	Formation	Geology: Description	Samples
			Willie Taylor.	
376	378.5	Jt.	ls, lt.-med-gy, sltly re-crystallized, oren	
378.5		Jt.	ls, med-dk.gy, almost completely re-crystallized, black & wht calcite x-tals.	
	389		highly fractured, - fractures both healed & open, crystals along planes	
389	393.5	Jt.	ls, shaly, med-gy-brn muddy, thin bedded	
393.5	394	Jt.	ls. 100% re-xtallized to calcite	
394	397.4	Jt.	essentially same as 389-393.5	
397.4	397.9	Jt.	same as 393.5-394	
397.9	402	Jt.	ls, med-dk.gy, oren, massive, slt. re-xtalization	
402	403	Je	ss, purple, fn-med.gn	
403	406	Je	ss. lt. yel. brn. fn-mdgn.	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2000-1000 C-10	29 13-9	6798	2 3	1	5/22/56	RMM

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
260				see inset for core log		.03		THB	2	V				Jt
						.03		0	2	V				
						.02		1	4	1				
						.09		256	2	V				
						.03		257	4	V				
						.03		258	6	V				
						.2		1	2	4				
						2		272	6	V				
280						.09		273	10	V				
20						.03		274	34	V	8 IV			Jt
	Jt							275	45		15 V			
	Je	ss	rel-brn	fn-med gr		.03		275	40		13 IV			
								275.5	10		3 IV			Je
								276	6					
								283	6					
						.03		284	2					
300	TD 285							285	2	V				
40								TD 285						

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

260 280 300 20 40 60 80 100 120 140 160 180 200 220 240 260

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
2000-1000 C-9	24 12-9	3 3	5/22/56	R Mon

Footage From	Footage To	Formation	Geology: Description	Samples
257	270	Jt Je	Transition - ls, lt.-med.gy, arenaceous, muddy, streaks at gash (1-2") and cock	
270	274	Jt	ls, med-dk.gy. crenulated thin bedded, 50% re-crystallized, muddy, trashy, tr tyg gaminite at 273'	
274	278	Jt.	ls, med-dk.gy, vert. hauled fractures, muddy, dense, sltly re-crystallized	
278	278.4	Jt.	ls. wht-lt.gy, 100% re-xtallized to lattice fm, columnar calcite xtals	
278.4	285	Jt.	essentially same as 274-278, abund vert fractures, tr black mat (carbon Fl.?) calc. xtals along frac	
285	285.8	Je	ss, purple, fn-md.gr	
285.8	287	Je	ss. gn-gr. fn-med.gr.	

Drawing No. 793

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2200-1000 C-11	29 13-9	6810	1 2	0	5-22-56	RMM.

Geology: Driller: Hannum, Rig 11

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0	Qal	Qal	blow	sand.										Qal blow sand
	Jb	ss	lt. gy.	fn-med. gr.										Jb
90		sh	red-brn	brown, calc.										
		ss	wht	fn-med. gr.										
160	Jb ? Js	sh	red-brn	gray, calc. towards base, thin streaks of brown ss. (wet) streaks of gas.										Jb ? Js

Dotted line Graphic Assay
Solid Line - Probe

0% 20% 60

0 20 40 50 80 100 120 140 160 180 200 220 240

Hole No.	Sec	Elevation	Page of	Pages	No. Insets	Date	Logged by
2200-1000 C-11	29 13-9	6810	2	2	0	5/22/86	K.M.M.

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260		sh	red-brn	aren, calc. toward base			
	Js						
	Jt	ls.	dk.gy	aren, - ca partially re-xtallized muddy		.03 mr/hr	2' bed cutting sample
280		ls.	med-grbrn	ls aren, muddy, argill, slt'ly re-crystallized			
		ss	red-brn.	fn-med-gr.			
		ss	gy, lt.	fn-med-gr. argill, calc.			
		ls.	lt-med-gy brn.	dense, fn-bedded. slt'ly re-crystallized (20%) crenulated bedded.			
300		ls.	brn-gy	argill. slt'ly re-crystallized			
		ls.	lt-med-gy, gn.	blebs of clay, slt'ly re-xtalline, dense + thick bedded.			
	Jt.						
	Je	ss	red-brn	fn-med-gr.			
320							
	TD 320						

Probe

Depth	Reading	Scale
THB	.001	mr/hr
8	.001	
261	.001	
261	.002	
310	.002	
TDP 318		

Scaler

Interval Foot	Assay

Graphic log

Description
Js
Jt
Je
TD 320

Dotted line Graphic Assay Solid Line - Probe

0% .20% .60

260 0

280 280

300 340

320 320

80 80

100 100

120 120

140 140

160 160

180 180

200 200

220 220

240 240

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2400-1000 C-12	29 13-9	6821	1 3	1	5/23/56	R.M.M.

Geology — Willie Taylor, Rig 7.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Scaler Assay	Graphic log	Description
0	Qal			blow sand.										Qal
	Jb	ss.	gy.	fn.-med. g.r.										Jb.
200	Jb / Js	sh	red-brn	aren. calc. streaks of gn. sh.										Jb / Js

Dotted line Graphic Assay Solid Line - Probe

0% .20% .60

0 20 40 60 80 100 120 140 160 180 200 220 240 260

cont.

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2400-1000 C-12	29 13-9	6821	2 3	1	5/23/56	RMM

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260	Js	sh.	red-brn.	green, calc, stringers of gn sh & brecc.			
280						4/4 30 / 243	
300						6 KCPM	
320	Js / Jt	sh.	ltgy.	green, very calc.			
		ls.	~~ltgy~~	very re-crystallized		.03 .03 .05 .02	
		ls.	med-dkgy	75% re-xtallized			
				see inset for core log		core	
	Jt	ls.	~~dkmedgy~~	60% re-crystallized		.07 .03 .06	
340	Je / TD 333	SS	red-brn.	f-m-bmd. gr.			

Probe

Depth	Reading	Scale
THB	0	2
0	0	2
2		
323	0	2
323.3	4	2
324	2	2
2	2	2
333	2	2
TDD 333		

Scaler

Foot Interval | Assay

Graphic log | Description

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Graphic log: Js, Jt, Jt, Je, TD 333

Hole No	Sec.	Page of Pages	Date	Logged by
2400-1000	29 13-9	3 of 3	May 20 1980	mm.

Footage From	Footage To	Formation	Geology Description	Samples
303	303.5	Jt.	ls, aren, sltly re-crystallized	
303.5		Jt.	ls, lt-med.gy, highly altered, almost completely re-crystallized, black specks (Fluorite?)	
	310		vert. fracturing, bedding indistinct due to alteration, abund. fresh calcite xtal faces.	
310	314	Jt.	ls, lt-med.gy-dk.gy bands, muddy, 75% re-crystallized, tr. Fluorspar.	
314		Jt.	ls, dk.gy-black, dense, thin (1/8-1/2") bedded, muddy, trashy, few vert. fractures,	
	323.5		healed with calcite, patches of red mineral in fractures (hematite)? sltly (20%) re-xtal.	
323.5	323.6	Jt.	ls, 100% re-crystallized to calcite, lattice fan of calcite xtals.	
323.6	326.7	Jt.	ls, dk-med-gy, dense sltly re-crystallized, banded with dk.gy bands, thick (4-6") bedding	
326.7	327.5	Je	ss, purple, fn-med-gr.	
327.5	333	Je	ss, red, yel, gn banded, fn-med-gr.	

Drawing No. 793

Hole No	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
2600-1000 C-13	29 13-9	6835	1 2	0	5/23/56	EMM

Geology

Formation	Lithologic Rock	Color	Description
Qal			blow sand.
Qal / Jb	ss	gray	fn-med. gr.
	sh	red-brn.	green
	ss.	brn.	wet, fn-coarse gr.
Jb / Js	sh.	red-brn.	green, calc. streaks of brn. ss. (very green)
	sh	red-brn.	green, calc, streaks of brn wet ss & gn sh. very calc. near base

Probe: Caliper, Gamma Ray, Neutron, Density, Resistivity, Spontaneous Potential

Scaler: Scale Reading, Scale Factor, Assay

Geologic Correlation: Qal, Jb, Jb, Js

Dotted line: Gamma Assay, Solid Line - Probe

0% 100% 60

Hole No	Sec.	Elevation	Page	Pages	No Inserts	Date	Logged By
2600-1000 C-13	29 13-9	6832	2	2	0	May 23, 56	EMA

Geology

Hannum, Rig 11

Depth	Formation	Lithology	Color	Description	Drill Rate	Cuttings	Tracer	Sources	Probe Depth	Scale Reading	Interval Assay	Core Recovery	Core Description	Drill Time Min. per Foot
260				Sh red-brn, green, calc. toward base, streaks of gn. sh & brn ss.					THB 0 349	.001 meter				
280														
300														
320	Js / Jt	ls.	lt.gy	Green, sltly calcareous, sltly xe-xtal.									Js / Jt	
		ls.	lt-med.gy	dk.gy chunks (red.) xe-xtalline w/ thin bedded										
		"	dk.gy-blk.	very (80%) xe-xtal. blk carb calc rhombs.										
		"	"	sltly xe-crystallized, thin bedded mudstone										
		"	dk.gy-brn	" " "										
340		"	dk.gy-brn	" " "										
		"	dk.gy-blk	" " "										
		"	dk.gy-blk	" xe-crystallized, calc. rhombs										
	Jt	"	red-brn gy	xe-crystallized, green.									Jt / Je	
	Je	ss	red. brn fn. med gr.											
	TD 350												TD 350	
360														
120														
140														
160														
180														
200														
220														
240														
260														

.05 mm hr

2' wet cuttings samples

Hole No.	Sec	Elevation	Page	Pages		Logged by
2800-1000 C-14	29 13-9	6844	1	3	1	May 23, 1956 [illegible]

Depth	Lithologic Interpretation	Color	Description	Sample Description	Geophysical Log	Electrical Log	Sample Description	Electrical Log	Remarks
0	Jb ss	grey	blow sand fn-mdgr						Qal / Jb
20									
40									
60									
80									
100									
120									
140	Tss	brn	fmcr.gr						
160									
180									
200	Jb ?? Js sh.	red-brn	aron, calc.	streaks of gn.sh.					Jb ? ? ? Js
220									
240									
260									

Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
2800-1000 C-14	29 T2-9	6844	2 of 3	1	5/28/56	Rmw

Depth	Lithostratigraphic Unit	Type of Rock	Color	Description	Radioactivity	Gamma Log	Sample Description	Core Recovery	Core Analysis	Porosity	Permeability	Sample Recovery	Sample Quality	Radioactivity	Assay	Geochemical Log	Lithologic Description	Drilling Time Groups, Assay Sand Lime Shale
260	Js	sh.	red-brn	aron. streaks of brn cs (wet) & gnsh. calc. toward base								THB 0 366	.001 m.d/hr. .001 .001					
280																		
300																		
320																		
340	Js / Jt			see insert for core log													Js / Jt	
360	Jt / Je			ss. red-brn fn-med.gr.													Jt / Je	
	TD 370																TD 370	
380																		
400																		
420																		
440																		

Inset Sheet

Hole No	Sec.	Page of Pages	Date	Logged by
2800-1000	29 13-9	3 3	5/24/56	Roman.

Footage From	Footage To	Formation	Geology: Description	Samples
340	342	Js	ss, red-brn, fn-md. gr. calc.	
342	348	Jt.	ls, almost completely recrystallized, med-dk.gy, blk & wht calc. scalenohedrons in fractures & solution cavities.	
348	352	Jt	ls, med-dk.gy, crenulated, thin bedding, shaly, carbonaceous 50% re-xtallized	
352	356.3	Jt.	ls, dense, dk.gy-black, med (.5') bedding, sltly re-crystallized (-5%)	
356.3	356.4	Jt.	ls, re-xtallized to calcite, calcareous structure.	
356.4	366.7	Jt.	same as 352-366.3 356.4-366.7	
366.7	370.	Je	ss, purple, red-brn, gn banded, fn-med-grnss 366.7-370	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3000-1000 C-15	29 13-9	6851	1 2	0	5/24/56	RMN

Hannum Rig 11

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Scale	Scaler Interval Foot	Assay	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe 0% 20% 60
0	Qal			blow sand.										Qal	
	Jb	ss	lt. gy.	hard. lt. gy.										Jb	
20															
40															
60															
80															
100															
120															
140	Jb ? Js	sh.	red-brn.	green - calc. toward base, streaks of gn. sh.										Jb ? Js	
160															
180															
200															
220															
240															
260															

Hole No	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
3000-1000C-15	29 13-9	6851	2 of 2	0	5/24/56	RMM

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Scaler Scale	Scaler Interval Foot	Assay	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe 0% .20% .60
260		sh.	red-brn.	aren. calc. stringers of gn. sh. calc. toward base				THB 0 ↓ 400'	.001 mr/hr .001 mr/hr ↓ .001 mr/hr						260
280															280
300															300
320															320
340															340
360	Js												Js		360
	Jt.	ls.	med-gy-brn.	75-80% re: crystallized calc. rhombs in cuttings									Jt		
		ls.	dk-gy-brn.	40% re-xtallized, calc. xtals. thin bedded, muddy											
		ls.	dk-gy-blk.	slty re-xtallized (20%re), muddy, trashy, thin bedded											
380		ls.	med-gy-brn.	20% re-xtallized, thin bedded, muddy, rad ls. frag.											380
		ls.	lt-gy	dense, slty, re-xtallized thick (1.5') bedded											
	Jt	ls.	lt-gy	dense, red shaly plates, very muddy, thin bedded									Jt		
	Je	ss.	red-brn.	fn-med. gr.									Je		
400	TD 400												TD 400		400

1 sample per 10' of cuttings

2' composite cuttings samples

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3200-1000 C-16	29 13-9	6862	1 3	1	5/24/56	R. [illegible]

Geology: A. D. Woody, Rig 7.

Footage	Formation	Type of Rock	Color	Description	Features	Geiger	Cycles	Probe Depth	Probe Reading	Scaler Scale	Scaler Interval	Scaler Foot	Assay	Graphic log	Description
0	Qal			blow sand			1								Qal
	Jhb	ss	lt. gy.	fn.-med. gr.											
40															
60															
80															
100															
120		ss	brn.	fn.-med. gr.											
140															
160	Jb Js	sh.	red-brn.	streaks of brn ss & gn. sh.											Jb ?-?-?- Js
180															
200															
220															
230															

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Hole No.	Elevation	Page of	Pages	No. Insets	Date	Logged
3200-1000	24 139 6862	2	3	2	5/24/55	Rehm

Woody, Rig 7.

Depth	Geologic Age	Lithology	Description	Radioactivity	Assay	Core Analysis	Remarks
260		sh. red-brn.	aren, st-calc otgo. sh & vca-ss.	THB .01 mr/hr 0 .01 2 2 364 .01 365 .02 401 .02			
280							
300							
320							
340		sh. white	aren, calc.				
360		sh. red-brn.	very aren.				
380	Js / Jt	ss / ls. wht.	fn-med. gr. very calc. see insct for core log.			Js / Jt	
400	Jt / Je TD 401'					Jt / Je	
160							
180							
200							
220							
240							
260							

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
32 00-1000	29. 13-9	3 3	5-24-86	RMM

Footage From	Footage To	Formation	Geology: Description	Samples
371	376	Js.	ss, argill, thin bedded, muddy, red-brn, fn-med gr calc.	
376	380	Jt	ls, med-dk. gy-brn. 75% xe-crystallized, solution cavities, lined with blk & wht. calc. scaleno behrony	
380	383	Jt	ss, ltgy-gr fn-med. gr. blebs of gosh, calc. (vegs)	
383	387	Jt.	ls. med-dk. gy, fn-irreg (accumulated) muddy, trashy 30% xe-crystallized	
387	391	Jt	ls, dk. gy-brn, fn-regular bedded muddy, trashy, sltly (ss) xe-crystalline, shale streaks.	
391	391.4	Jt	Ls. lt.-med. gy, columnar xtals in lath, ice	
391.4	395.5	Jt	same as 387-391	
395.5	395.8	Jt	same as 391-391.4	
395.8	396.5	Jt	same as 387-391	
396.5	396.8	Jt	Calcite bleb in blk. carb. s.s.	
396.8	-399	Jt	same as 387-391	
399	401	Je	ss, fn-med. gr. purp, yel, gn. calc.	

Hole No.	Sec.	Elevation	Page of Pages	No. Isosets	Date	Logged by
3400-1000 C-17	29 13-9	6868	1 2	0	5/25/56	R.M.M.

Hannum Rig 11

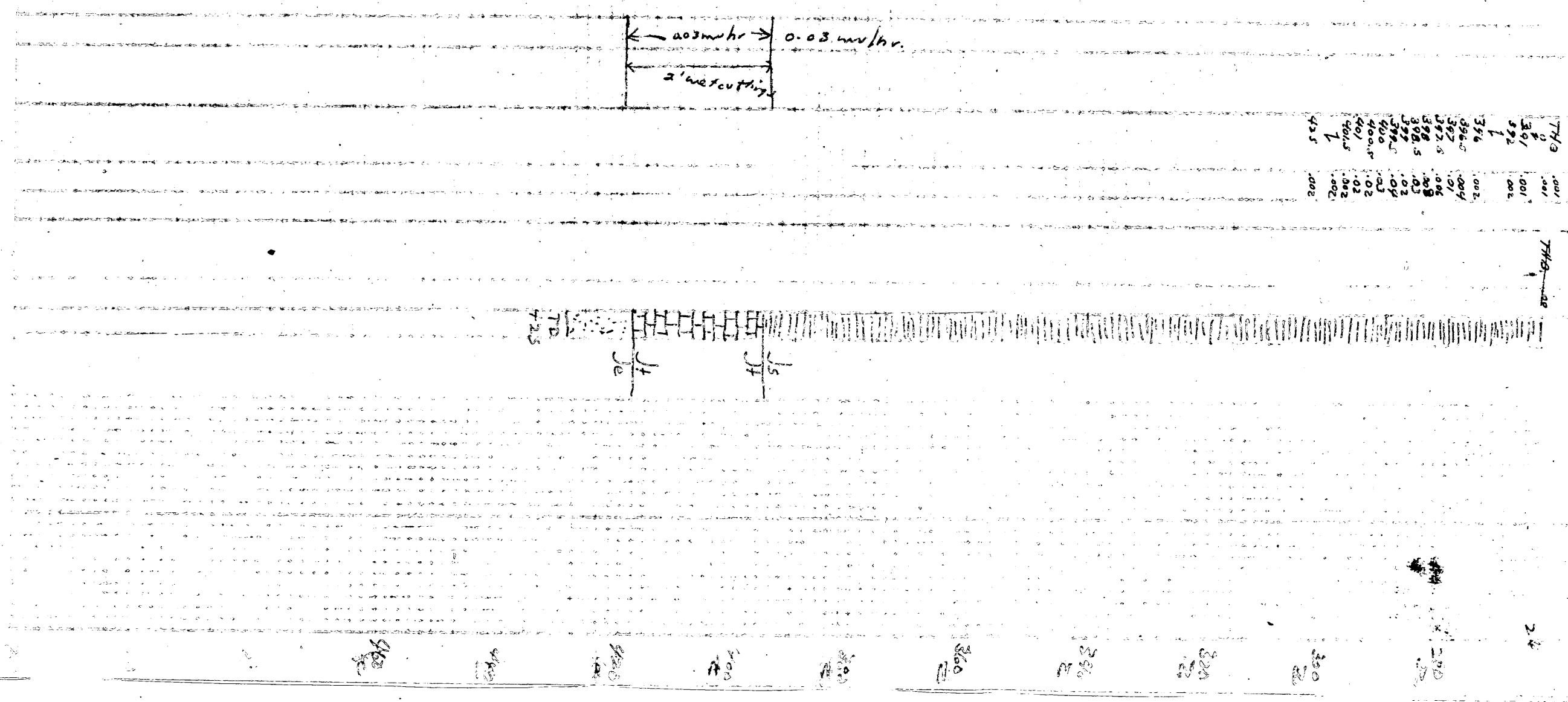
Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Scaler Assay	Graphic log	Description
0				blow sand										Qal
20														
	Qal													Qal
														Jb
40														
60														
80														
100														
120														
140														
160														
180			sh.	red-brn	aren, ~~streaks of gn. sh & Brn. ss.~~ calc. ~~to and base~~.									
			ss	brn.	wet. fn - med. gr.									
200														
220														
	Jb													Jb
240	Js		sh	red-brn	aren, streaky, of gn sh & brn wet ss, calc. to and base									Js.
260														

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

3400 1000 C-17 25 15-4 6868

Hinaura Pit 1

Sh. rubbm. green calc. stratus of gn. sh & wet brn. sa. increasingly calcareous and base.


0.03 mr/hr
0.03 mr/hr.
2' wet cutting
Jb/Jf 14. mudstone partially re-cemented, mudstone green.
15. mudstone partially re-cemented with thin bedded sandstone. 10% cement.
Jf/Je 15. mudstone grey-green, well bedded, 5% cement.
TD 924
Jf/Je
Jf/Jc
Jb
Jc
Je
Jf
Jb
Jc
Je
Jf
Jb
Jc
Je
Jf

3600-1000 C-18 $\frac{29}{13-9}$ 6876 1 3 1 5/24/56 R.m.m.

Taylor, Rig 7

Qal blow sand.

Qal
Jb ss. red-brn coarse gravel.
ss red. brn fn-med. gr.

ss lt.gy fn-med. gr.

Qal

Qal
Jb

80

60

100

120

140

160

180

200

220

240

260

Hole No.	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
3600-1000 C-18	29 13-9	6876	2 of 3	1	5/24/56	R.M.M.

Geology

Depth Scale	Formation	Lithologic Symbol	Color	Description
260	Jb	ss	red-brn	f.-med.gr.
280	Jb / Js	sh.	red-brn	Green, calc. streaks of brn. wet ss, & gn sh.
300				
320				
340				
360				
380				
400	Js / Jt	sh.	green	Green, calc.
		ls.	~~red~~-gy	green.
		ls.	dk.gy	very re-xtallized.
420				see inset for core log.
	Jt / Je / TD 431	ss	red-brn	f.-med.gr
440 / 180				
200				
220				
240				

Sample Cuttings

Geiger

Core Recovery

Core Description

Core Photos

Probe Operator

Probe Reading

Scale

Scaler Factor

Assay

Graphic Log

Core Photos

Dotted line Graphic Assay Scaled Line - Probe

0% 20% 60%

THB 4/21

.001 m-/hr.
.001 m-/hr
.001 m/hr

.03 m/hr. background

.03 m/hr.

core rad.

Jb
Js

Js
Jt

Jt
Je

TD 431

260 280 300 320 340 360 380 400 420 440

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
3600-1000 C-18	29 13-9	3 3	May 25, 1956	EMM

Footage From	Footage To	Formation	Geology: Description	Samples
402	403	Jt.	ls. med-dk.gy, very re-crystallized, abund dk. patches (carb. mat.	
403	404	Jt.	ss. calc. lt.gy. fn-med-gr.	
404	404.5	Jt.	same as 402-403	
404.5	415	Jt.	Same as 403-404	
415	420.3	Jt.	ls, fn-bedded - med-dk.gy-brn. thin, crenulated bedding 40% re-crystallized sh plates in fine bedding planes	
420.3	424	Jt	ls, dense, med-dk.gy. fn. bedded, muddy, dense, slt/y re-crystallized	
424	424.5	Jt.	calcite, re-xtallized Ls. lattice fm. of columnar structure	
424.5	427.6	Jt.	same as 420.3-424	
427.6	428.2	Jt.	same as 424-427.5	
428.2	430.5	Jt.	same as 420.3-424	
430.5	431	de	ss, purple, fn-med-gr. calc.	
431	432	de	ss, lt.gy-brn. fn-med-gr.	

Jt-Jt trans

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3800-1080 C19	19-9 29	6979	1 2	0	5-31-56	DB

Geology: Footage | Type of Rock Formation | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Foot Interval | Assay | Graphic log | Description

Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

Hannum Rig #11

0 — T.H.B. 0 — .02 .0141

20 — blow sand

40 — #57 .02

60 — Qal / Jb — Qal / Jb

80

100

120

140 — ss. lt red fn. med. grain v.hard

160

180

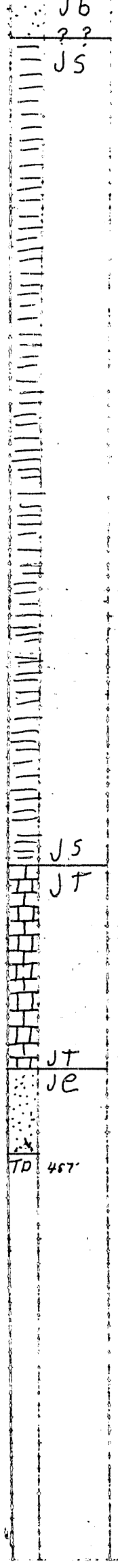
200 — ss brn. fn. med. grain

3800-1900 C19 13-9 29 2 2 6 5-31-56 DB

Depth	Formation	Description
266		
280	Jb ?? JS	
300		
320		
340		sh. red streaks of brn. sand
360		
380		
400		
420	JS Jt	ls lt. gy. arenaceous V. recystillized particles grn. clay ?
		ls lt. gy. brn. V. recrystillized st.ly. arenaceous
440		ls lt. brn. gy. V. dense st.ly. recrystillized
	Jt Je	ls lt. red gy. V. arenaceous
		ss red fn. med grain
460	TD 467'	

.02 background

2' wet samples taken



Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
200-1000 C-1	29 13-9	6764'	1 / 1	0	5/25/56	R. Mon.

Geology

Driller: Woody, Rig 5.

Formation	Type of Rock	Color	Description	Geiger Features	Radioactivity	Samples Taken	Probe Center	Probe Reading	Probe Scale	Scaler Interval Foot	Assay	Graphic Log	Description
Qal			blow sand.				THB 0 140 147 166 167 178	.001 mr/hr .001 mr/hr .001 mr/hr .002 .002 .001 .001				Blow sand	Qal
Qal / Js	sh	red-brn. grn.											Qal / Jb
	ss	red-brn. coarse grained											
	sh	red-brn. grn, calc. toward base, streaks of gn sh & brn. wet ss.											
Js / Jt	ls.	dk. gy, grn. recrystallized, silicified calc. shanks											Js / Jt
	ls.	dk. gy-blk grn, recrystallized, sandy											
	ls.	dk. gy-blk thin bedded, sltly re-xtal, dense, little ve-xtal.											
Jt / Je	ls.	dk. gy. " " " " " sandy											Jt / Je
	ss	fr-med-gr. fr-med-gr											
TD 178													TD 178

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

0 20 40 60 80 100 120 140 160 180 200 220 240

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
400-1000 C-2	28 19-9	676.4	1 / 2	1	May 4, 1956	Rmw

Geology — Driller: Willie Taylor Rig 7

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0	Qal			Blow sand.				THB 9 179	10 10 10					Blow Sand
20								surface blk and very erratic						
40														
60	Qal / Jb			ss. Hrd-brn fa-m.d.gr. argillaceous										Qal / Jb
80														
100				ss. Hrd-brn coa-coarse gr.										
120	Jb, Js			sh. Hrd-brn green streaks of gn. sh.		b/sand 1/2 hr								Jb(?) Js(?)
140	Js, Jt			sh. Hrd-brn very ovrn-gn ch. gn. streaks										
	Js / Jt			sh. Hrd-gn green-sl. br. (mudstone pt) fine seams ss. Hrd-gn v.c.-crystalline										Js / Jt.
160				see inset for core log.		1 1/2 hr	core							
				ss. Hrd-gy sl. re-crystallized										
	Jt / Je			ss. Hrd-brn-fa-med gr.										Jt / Je
180	TD 180													TD 180
200														
220														
240														

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
400-1000	1 29 13-9	2 2	May 5, 1986	RMM.

Footage From	Footage To	Formation	Geology: Description	Samples
140	154.5	Js.	mudstone, aren, lt. gy-brn. red streaks, calcareous.	
154.5		Jt.	ls, lt.-med.gy, crenulated dk.gy bands on lt. gy, fractures, some bedding planes and solution channels	
	161		lined with calcite crystals, tr. flourite	
161	169	Jt.	ls, lt-med. gy, ~~[illegible]~~ thin streaks (aft.) lt gy-dk. gy, thin bedded, very little re crystallization	
169	170.3	Jt.	ls. lt.-med.gy-brn. thin bedded s/lt. re-crystallization	
170.3	170.5	Jt.	ls. 100% re-crystallized - fracture zone, filling or solution channel.	
170.5	174.1	Jt	ls. lt.-dk.gy, very s/tre. crystallization to cock mat on fracs.	
174.1	180	Je	ss. fn-med.gr. lt. gy, red bands (1/4" thick) well sorted, x-bedded (?)	

Drawing No. 793

Hole No	Sec	Elevation	Page of	Pages	No Insets	Date	Logged by
600-1000 C-3	29, 3-9	6767	1	1	0	5/25/56	RMM.

Geology

Driller: Woody
Rig 5.

Depth	Geologic Age	Formation	Lithologic Description	Geologic Structure	Radioactivity Scale Reading	Scaler Interval Scale	Assay	Geologic Cross Section	Drilling Time Penetration Rate Gamma Ray Neutron Probe
0	Qal		Blow sand.		BKgnd. .001 mr/hr. 0 .001 mr/hr 204 .001 mr/hr.			Qal Qal	
20									
40									
60								Blow sand	
80	Qal / Jt / Js.		sh. red-bro. aren, calc. streaks of gn sh.						
100			ss. red-brn. coarse gravel.						
			sh. red-brn. aren, calc. top and base, streaks of gn. sh.						
120									
140					0.5 mr/hr.				
160	Js / Jt		ls. dk. gy. sotoe-xtallized, thin bedded, abund. calcite					Js / Jt	
180			ls. dk. gy-brn. thin bedded, partially re-crystallized, muddy		0.5 mr/hr				
	Jt / Je		ls. lt gy-brn. thick bedded, muddy, aren.		≤ 2' water, Hings samples.			Jt / Je	
200			ss. red-brn. fn-med-gr.						
	TD 204							TD 204	
220									
240									

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
800-1000 C-4	29 13-9	6768	1 2	1	May 5, 1956	RMG

Geology — Dave Hannon, Rig 11

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0–20	Qal							THB 0 ½ 20S	10 10 2 10	½ ½ ½ ½	THB			
20–40														Blow sand
40–60														
60–80	Qal / Jb.			ss. Hard fine-med gr. arg. ill.										Qal / Jb.
80–100				ss. Hard to coarse - long. gr.										
100–120														
120–140	Jb? / Jb?													Jb? / Js.
140–160														
160–180	Js / Jt			H. Hard brown sh. weak lmy. / ls. lmy. partly ve. crystallized / see inset for core log / ls. Hyg. partly recrystallized, recrystallized.		Background radiation 10 mr/hr	core							Js. / Jt
180–200	Jt / Je 207 TD			ss. Hard brn.										Jt / Je / TD 207
200–220														

Dotted line . Graphic Assay
Solid Line - Probe
0% .20% .60

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
800-1000	29 13-9	2 2	May 5, 1956	RLMm

Footage From	Footage To	Formation	Geology: Description	Samples
184		Jt	ls. 60% lt-med-gy re-crystallized ls. abundant calc. xtals. in fractures. to flourite.	
190	192	Jt	ls. 100% re-crystallized retains bedding(?) abund calcite xtals, to flourite, crenulated.	
192	194.3	Jt.	ls. 30% (?) lt.-med gy re-crystallized. less defin. bedding, crenulations locally (bedding) red mat. (limonite) on fractures.	
194.3	199.9	Jt.	ls. dk gy to black. muddy, abund carb mat. (?)	
199.9	202	Jt.	ls. lt.-med. gy massive, very little re-crystallization	
202	206	Jt.	ls. lt. med. gy calcite crystals on fractures. (recent)	
206	207.	Je	ss. lt. red-brn. fn-med. gr. (present only on 1' core-lost remainder.	

Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
1000 – 1000 SS	29 (13-9)	6568	1 / 1	0		DB

Geology

Woody Rig #6

Footage	Formation	Color	Description	Footage	Lithologic Symbols	Gas Gel	Occursic	Fact. Wes	Probe Depth	Probe Reading	Probe Scale	Scaler Interval	Scaler Fac.	Scaler Assay	Graphic Log	Description
0									THB 0	.01	.01x1					
20									224	.01						
40	Qal		blow sand													
60																
80															Qal / Jb	
100	db	ss	lt red	fn. med. grain												
120	??														Jb ??? / Js	
140	Js	sh	lt red brn	arenacious limy												
160																
180																
200		ls	med gy	arenacious slightly crystillized											Js / Jt	
	Jt	ls	brn gy	slt. ly recrystillized												
		ls	brn gy	very dense												
		ls	lt gy grn	shaly												
	Je	ss	lt red												Jt / Je	
	TD															

Dotted line Graphic Assay
Solid Line – Probe
0% 20% 60

← No Recovery →
← 2' wet plug samples taken →

Hole No.	Sec.	Elevation	Page of	Pages	No. Insets	Date	Logged by
1200-1000 C-6	29 13-9	6767	1	2	1	May 3, 1956	RHM

Geologs

Rig #7, Willie Taylor.

Footage | Formation | Type of Rock | Color | Description | Features | Geiger | Discrostic | Samples Taken | Probe Depth | Probe Reading | Probe Scale | Scaler Foot Interval | Assay | Graphic log | Description | Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

0 — Qal — blow sand.

Depth	Reading
THB	10
9	
220	10
220.5	14
221	14
221.5	20
222	14
222.5	14
223	18
223.5	16
224	20
224.5	21
225	20
225.5	16
226	14
230	14

TDP 234.6

Top hole bkgrnd 18-20

I believe recorder count is bkgrnd.

20 — Qal / Jb — ss. lt.-dk.brn. fr.-med.gr. cor-conq. gr. (gravel). wet.

Jb / Js — ss. red-brn. green. calc.

40 — bkgrnd - 0.5 - 0/mv/hr. very erratic.

60 — Blow sand

80 — Qal / Jb — water — Jb / Js

100 — .05 - .10 mv/hr. — core

120 — Water — Js / Jt

140 — Jt / Je

160 — ss. wht-lt.gy. f.-med.gr. calc. wet.

180 — Jt — ls. med-dk.gy. re-crystallized

see inset for core log

200 — ls. med dk.gy. un-altered

220 — Jt / Je / TD 237

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1200-100[illegible]	29 13-9	2 2	May 21 1956	RCMM.

Footage From	Footage To	Formation	Geology: Description	Samples
202	208.5	Jt.	ls. lt.-med. gy. re-crystallized (60%?) (to 90%?) calcite crystals in frast. zones, slickensides, tr. fluorite, massive	
208.5	214	Jt.	ls. med.-dk. gy, thin bedded, laminated lt. & dk. gy color bands. 50% re-crystallized	
214	217	Jt.	ls. med.-dk. gy. 90% re-crystallized, seams of fluorite (purple?) calcite x-tals, brn & yel. brn.	
217	227	Jt.	ls. med.-dk. gy. thin bedded, regular. tr. fluorite at 226.5. very little re-crystallization	
227	230	Jt.	ls. " " " " " " " " " "	
230	233	Je	ss. fn.-med. gr. alt. red & gy-gr. bands, x-bedded	
233	237	Je	ss. lt. red-brn, fn-med. gr.	

Drawing No. 793

Hole No	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
1400-1000 C7	13-9 29	6770	1 / 1	0	5-28-56	DB

Geology — Wobly Rig #5

Footage	Formation	Type of Rock	Color	Description	Features	Discrete	Gauge	Sample	Probe Counter	Probe Reading	Probe Scale	Scaler Interval	Scaler Foot	Assay	Graphic log	Description
0									THB 0	.01	0x1					
20				blow sand												
40	Qal / Jb															Qal / Jb
		ss	ltred	fn. med grain												
60	Jb / Js															Jb / Js
80																
100		sh	ltred brn	arenaceous limy												
120																
140																
160																
180																
200																
220	Js / Jt	Ls	lt gy gra.	shaly very recrystallized												Js / Jt
		Ls	bro. gy	sl.ly recrystallized												
240		ls	dk gy	very dense												
	Jt / Je	ss	ltred													Jt / Je
	TD															TD 254

Dotted line Graphic Assay Solid Line - Probe

0% 20% 60

No count → ← 'wet' plug samples

1600-1000 C-8 29 13-9 6781 1 2 1 May 9, 1956 12mm.

Taylor, Rig 7

0 — Blow sand

Qal

20 — Qal

Jb / Js — ss. H.red-brn. Gravel, very coarse, wet
sh. red brn. arn calc.

40

60

80

100 — ss. brn. med-coar. gr. wet

sh. H.red-brn. calc, oven, streaks of gn. sh.

120

140

160

180

200 — ss. brn. f.-med. gr. calc. sh. streaks

220

Jb / Js / Jt — ls. lt.-med. dense, re-crystallized

240

see inset for core log.

Jt / Jc

TD 266

TH B 10 ▽
0 10 ▽

257.2 10 ▽

.05 m/hr bkgnd.

.05 m/hr

Core 232-260

Blow Sand

Qal

Js & Jb, undiff

Jt

Jt / Jc

TD 260

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1600-1000	29 13-9	2 2	May 8/1986	RMM

Footage From	Footage To	Formation	Geology: Description (28' core)	Samples
232	232.5	Jt	sh. gy-gr. green, calc.	
232.5		Jt	ls, lt-dk gy alt dk & lt. gy bands, (.10 in thick) crenulated, irregular bedded,	
	246		re-crystallized (about 75% to 100%), few solution channels, lined w/calcite xtals, tr fluorite.	
246	247.5	H	ls. lt. gy-med. gy, dense, very little re-crystallization reg. laminated bedding (.10-1') thick	
247.5	247.7	H	ls, re-crystallized to calcite, wht to lettuce green, w/ calcite columnar, gn calcite (?) in blebs in wht calcite	
247.7	258	Jt	ls. lt. med. gy, dense, very little re-crystallization, reg. massive	
258	260	Je	ss, red & yellow alt. bands, fn-med. gr. calcareous.	

Drawing No. 205

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1800-1000 C-9	29 13-9	6785	1 2	0	May 22, 1956	R.M.M.

Hannum, Rig 12

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0	Qal			blow sand				THB 0	0					
	Qd			blow sand				265	0					Qd
	Jb	ss	H.gy	fn. med.gr.				266 267	2 0					Jb
								270	0					
160	Jb / Js.	sh	red-brn	arcn. calc, toward base, streaks of gy. sh.										Jb / Js
		ss	H.gy	fn-med.gr. wet.										
220	Js / Jt	ls.	dk gy	dense, Re-crystallized (20%) hard. altered.										Js / Jt
		ss	wht	interfingered (?) in gy. ls.										
		ls.	gy-brn.	dense, fn-bedded altg. re-crystallized, muddy										
		ls.	red brn.											

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

0 20 40 60 80 100 120 140 160 180 200 220 240 260

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1800-1000 C-9	29 13-9	6785	2 2	0	5/22/56	B May

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval Foot	Scaler Assay	Graphic log	Description
260		ls.	gy-brn.	dense, fn-bedded, muddy										
		ls.	dkgy-black	dense, sltly re-crystallized										
	Jt / Je	ls.	lt-mdgy	dense, arenw, beginning of Jt-Je trans.		4-MRO.	2 samples taken, refused							Jt / Je
280		ss.	red-brn.	fn-med. gr.										
	TD 290												TD 290	
300														
60														
80														
100														
120														
140														
160														
180														
200														
220														
240														
260														

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

260 280 300 60 80 100 120 140 160 180 200 220 240 260

Hole No	Sec	Elevation	Page of	Pages	No. Insets	Date	Logged by
2000-1000 C-10	29 13-9	6798	1	3	1	May 22, 56	R.M.M.

Geology: Taylor, Rig 7.

Footage	Formation	Type of Rock	Color	Description
0	Qal	ss	gy	fn-med.gr.
20				
40		ss	red-brn	fn-med.gr. argill
60		ss	brn.	fn-med.gr. argill. wet.
80				
100				
120		ss	wht.	fn-crs.gr. wet.
140				
160				
180	Jb ?? Js.	sh	red-brn, aren, gn.sh streaks, calc increasing w/depth.	
200				
220				
240	Js Jt			see inset for core log

Core: .05 mm/hr. .05 mm/hr. Core

Scale: Blow sand. Q. Jt; Jb; Js; Jt

Contact line; Graphic Assay; Solid line - Probe

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1100-200 A-2	29 13-9	6786	1 / 1	0	Apr. 30, 1956	RMM

Plugged Hole
Driller: Hannum

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Scaler Assay	Graphic log	Description
0	Qal			Blow sand				Tonical THB	0					
								0	0					
								163	0					
80	Qal / Jb	SS		H. red brn fn.-med. gr. few red clay galls.										
100		SS		H. red brn fn.-m.f. gr. lim. sta. edges										
	Jb	SS		H. red brn fn.-med. gr. few gr. clay galls.										
	Jb (?)	SS		H. red brn fn.-med. gr. wht Ls (area) seams										
120	Jbwk Jb	SS		H. red brn fn.-m.f. gr. few gr. clay galls, wht gy Ls seam										
	H.	LS		dk. gy arco-spar re-crystallization										
		LS		dk. gy sltly aren.: sltly re-crystallized clay seams										
140	Jt													
160	Je													
	TD 163													

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Qal
Jb
Jb
Jb
Jbwk Jb for Jb
H.
Jt
Je
TD 163

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1200-200 A-3	29 13-9	6782	1 2	1	5-2-56	R. Mm.

Geology

Rig 11
Driller: (Weevil) Hannum
Geologist: [illegible]
Geiger Operator: [illegible]

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
0	Qal			blowsand			
80	Qal / Jb	ss.		thin-bed fa-m.-l. gr.			
120	Jb ? / Js	ss.		thin-bed fa-v.f. gr. argillaceous			
		sh.	gy-gr.	green (silty) silty calcareous			
140	Js / Jt	sh.	gy-gr.	argillaceous, limy, thin-bedded			
		ls.		thin-bedded very altered & partially to wholly recrystallized & massive to thin bedded. See insert for core tag			
160	Jt / Je / TD 160'	ss.		thin-bed calc. argill fa-m.-l. gr.			

Probe

Depth	Reading	Scale
THB	8	
0	8	
131.8	8	
132	10	
132.5	18	
133	10	
133.5	12	
153.5	12	
140	18	
140.5	25	
141	26	
141.5	20	
142	16	
142.5	18	
143	12	
156.9	12	
TDR		

Scaler

Interval Foot	Assay

Graphic log / Description

Qal
Jb
Jb
Js
Js
Jt
Jt
Je
TD 160'

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Depth of Erratic - Hard - Varable

1
.10
.18
.20
.19

Core

0 20 40 60 80 100 120 140 160 180 200 220 240 260

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1200-200	29 13-9	2 2	May 2-56	RMM

137-147 100% core recovery
130-137 - 85% core recovery
147-160 - 100% core recovery.

15' barrel.

Footage From	Footage To	Formation	Geology: Description	Samples
			all ls extremely hard.	
130	134	ls	sh. gy-gr. with streaks (25% ile - to 3 in wide) anhydrite, calcareous. Trans. zone to Jt.	
134	136.2	Jt	ls. lt. med-gy, black locally (in fractures) almost completely re-crystallized, fluorite	
136.2	137	Jt	ls med-dk. gy completely re-crystallized, abund. fluorite and xtals calc. mud seam at 136.4-136.5	
137	138	Jt.	" " " " almost. " " " " " "	
138	139.5	Jt.	ls. med-dk. gy thin bedded, partially re-crystallized, fluorite, calcite veinlets.	
139.5	140.0	Jt	ls. dk. gy to black, thin bedded, bedding planes ~~fillled~~ w/fluorite (?)	
140.0	147	Jt.	ls. dk. gy to black, massive, sparse veinlets calcite. extremely hard.	
147	156	Jt	ls. lt to dk. gy, massive, thin laminated seams, few fractures, sparse calcite xtals.	
156	160	Je	ss. lt. red-brn to dk. red brn. calcareous, fn-med gr.	

Drawing No. 793

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1300-200 A-4	29 13-9	6783	1 2	1	5/21/56	R. Smm.

Geology — Willie Taylor Rig 7.

Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Foot Interval | Assay

Graphic log | Description

Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)

0 — Qal

20 — Qal

40 — Qal

60 — Qal / Je / Js — ss red-brn cov. coarse gr. / sh. red-brn aren, calc, streaks of gn sh.

80 — Qal / Je / Js

100 — Qal / Je / Js

120 — Qal / Je / Js

140 — Js / Jt — ls. lt-gy almost completely re-crystallized; see inset for core log. / ls. lt-gy thin bedded, slightly re-xtallized

160 — Jt / Je

180 — Jt / Je / TD 175

200 — Jt / Je / TD 175

220 — Jt / Je / TD 175

240 — Jt / Je / TD 175

260 — Jt / Je / TD 175

Probe readings: 7.HB 2; 0 2; 136 2; 137 3; 140 6; 140.5 2; 141 2; 141.5 2; 142 2; 142.6 6; 143 2; 147.5 2; 148 12; 148.1 14; 148.2 26; 148.3 28; .4 32; .5 20; .6 28; .7 16; .8 16; .9 12; 149.0 8; 152 2; 164 2; TOP - 168'

Scaler: Bkgnd .05 mi/hr; .01; .10 mi/hr; .05; Core; Mineralization; Plug

Graphic log: Blow Sand; Qal; Je; Js; Jt; Je; Jt; Je; TD 175

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1300-200	29-13-9	2 2	5-21-56	RMM

Footage From	Footage To	Formation	Geology: Description	Samples
136	146.5	Jt.	ls, lt. med. gy, 90% re-cryst., prom. vert. fractures, healed w/calcite x-tals, slip planes prominent, bedding thin, irregular, tyuyamunite stain at 148-149.5	
146.5	160.5	Jt.	ls, med-dk. gy, muddy, thin bedded, wavy, bedding regr., slitly re-crystallized, vert. fractures.	
160.5	166.0	Jc	ss, purple, calc. fa. med. gr.	
166.0	176	Jc.	ss, red-brn. fa. med. gr.	
			Note: this, I believe, is one of the most promising holes on the 200 Line.	

Drawing No. 793

Hole No.	Sec	Elevation	Page of	Pages	No. Insets	Date	Logged by
1400-200 A-5	29 15-9	6789	1	2	1	May 9, 1956	R/M m.

Geology

Footage	Formation	Type of Rock	Color	Description
0	Qal			Blow sand.
60	Qal	ss. red-brn.	fn-c.gr.	
80		sh. red. brn.	green	
140	Jb / Jt	ls. lt. red. gy	re-crystallized	
160		ls. lt. red. gy	very little re-crystalized see inset for core log	
180	Je	ss. lt. red. brn	fn-med. gr.	
	TD 180			

Probe

Depth	Reading
Bobbey TUB	0
~~170~~	~~170~~
0	0
158	0
158.5	20
159	30
159.5	20
160	12
160.5	4
161	
170	4
TD 170	0

Scaler Scale

Scaler Interval Foot

Assay

Sample Recovery

Cavern

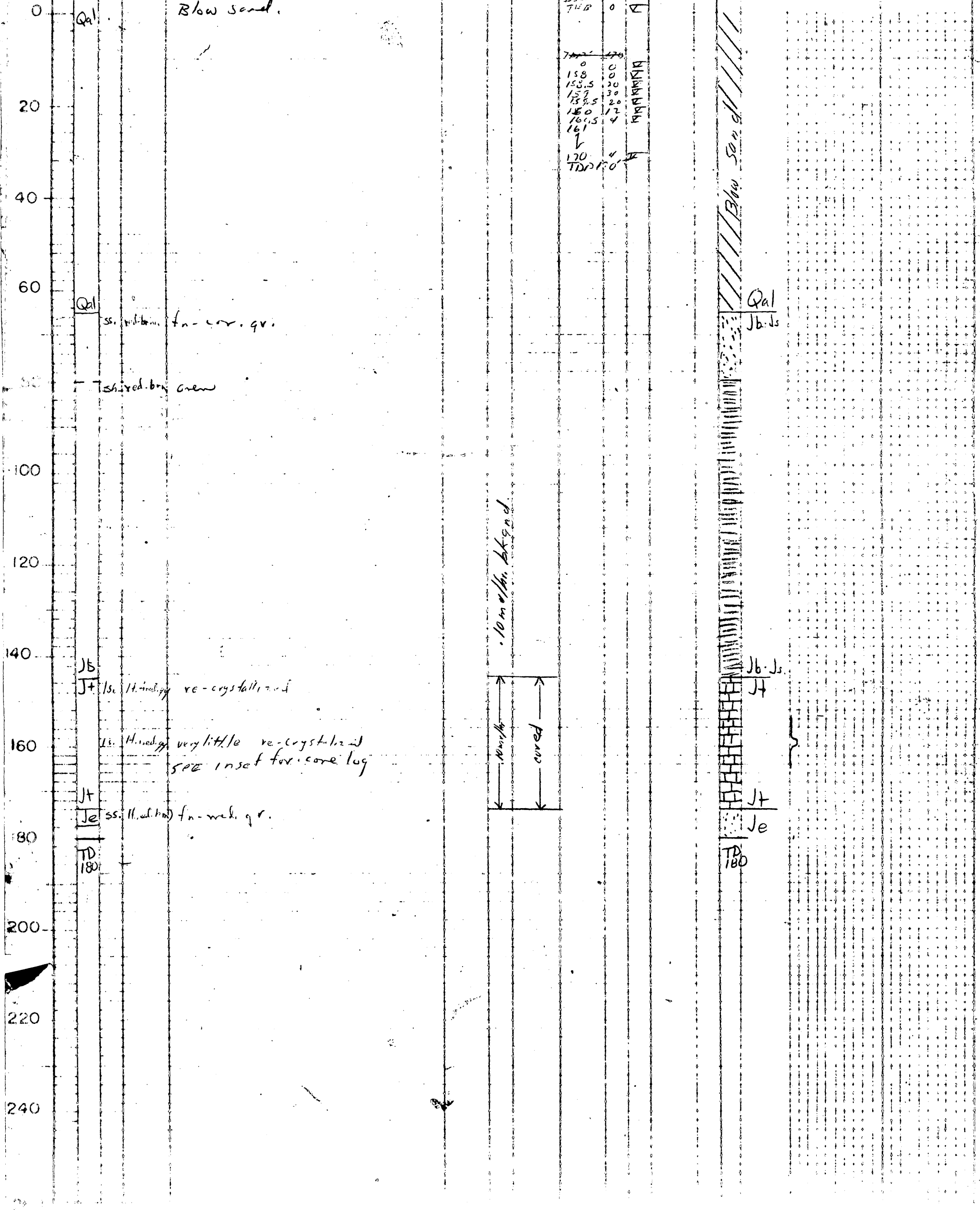
Geiger Counter

Fractures

Graphic Log

Description

Dotted line Graphic Assay
Solid Line - Probe
0% 50% 60%



Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1400-200 A-5	29 13-9	2 2	May 9, 1986	R.M.M.

Footage From	Footage To	Formation	Geology Description	Samples
150	156	Jt.	ls. lt.-med. gy; 60% re-crystallized to 100% fluorite	
156		Jt.	ls. lt.-dk. gy, banded-alternate bands lt. & dk. gy ls. to fluorite, thin (.3f-.1) bedded-	
	169.4	Jt	muddy,	
169.4	169.8	Jt.	ls(:) 100% re-crystallized, frost-work weathering, strong H_2S odor on breaking	
	169.8		gn-brn coating at 169.8 (mineral undetermined) referred to as "contact band"	
169.8	173.7	Jt	ls. lt. dk. gy dense, little re-crystallization	
173.7	180	Je	ss. lt. red-gy, banded red-gy, fn-med. gr. x-bedded.	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
1600-200 A-6	29 13-9	6802	1 . 1	0	May 31 1986	RWH

Geology | Probe | Scaler

Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken | Depth | Reading | Scale | Interval | Foot | Assay | Graphic log | Description | Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)

0 — Qal — Blowsand

THIS 10 V
9 10 V
207 10 V
THEN 10 V
THEN 30 III

20

40

60

Qal / Jb — ss. vet. brn. fn. v.f. sr.

Qal / Jb

80

100

sh. lt. red brn, aren
gr. stk.

120

Jb / Js — ss. lt. red brn fn-v.f. gr. argil.
contact ?
sh. lt. red brn arenac. calc. stks. gnss

Jb / Js ?

140

ss. dk. red brn fn-med. gr.

160

sh. dk. red brn fine stks, aren

Js / Jt — ls. lt. dk. gray brown, very hard. 80% re-crystallized to fluorite

Js / Jt

ls. dk. gy brn massive, very hard. 80% re-crystallized

ls. dk. gy brn massive, hard, slight re-crystallization to fluorite

180

Jt — ls. dk. brn massive, hard, very slight re-crystallization

200 — Je — ss. lt. red brn fn-med. gr.

Jt / Je

TD 210

220

240

260

Blank Hole Cut off Radioactivity (Sample Lost)
Wet Sample at bottom

Hole No.	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
1800-500 A-7	29 13-9	6801	1 of 2	1	May 22, 1986	R Kinard

Geology

Woody 1.5 hrs stand-by
Rig 5. 10' extra.

Depth	Contact	Lock Book	Color	Description	Features	Drilling Process	Gauge	Taken	Samples	Probe Depth	Probe Reading	Probe Scale	Sampler Interval	Sampler Assay	Geologic Section	Scale	Drilled line / Graphic Assay / Solid Line - Probe
0	Qal			blow sand.						THB 0	2 2	1/4					
										203	2	1					
20																	
40																	
60																	
80	Qal / Jb			ss. lt-gy fn-med-gr.											Blow Sand	Qal / Jb	
100	Jb? / Js			sh. red-brn, aren, calc. toward base, gn sh. stringers												Jb / Js	
120																	
140																	
160																	
180	Js / Jt			ls. red-dk-gy, fractured, s lt ly re-crystallized												Js / Jt	
				see inset for core log.													
200	Jt / Je / TD 203			ss. red-purp fn-med-gr.												Jt / Je / TD 203	
	TD 203			Finished & washout - drilled extra 10'												TD 213	
220																	
240																	
260																	

Js-Jt Trans Zone

Cored 0 to 203

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
1800-200 A-7	29 12-9	2 2	5-22-86	CMR.

Footage From	Footage To	Formation	Geology: Description	Samples
173	178.5	Je Js	tan, calc. gn & red. sh, ls stringers & xen	
178.5	183	Jt	ls. med-dk.gy, fn-irreg bedding, sltly re-xtallized	
183	201	Jt	ls - med-dk.g.g. brn - irreg bedding, thin - abund vert fractures	
201	202	Je	ss, lt.g.g. fn-med.gr	
202	203	Je	ss, purple, fn-med.gr.	

A-5

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2000-200	29 13-9	6807	[illegible]	0	May 4, 59	[illegible]

Geology

Rig 11, Driller: Hannum.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval	Scaler Foot	Assay	Graphic log	Description
0	Qal		Blow sand.					THB	10						Qal
								0	10						
								1	1						
								229.5	10						
								TDP 229.5							
20															
40															
60															
80	Qal / Jb			ss. red-brn f.-med.gr. argill											Qal / Jb
100				ss. red-brn coarse wet,											
120				ss. [illegible] streaks of gn. ss.											
140															
160															
180	Jb / Js			sh. Med-brn Green (40%) f.-med.gr. ss) streaks of gn. sh.											Jb / Js
				ss. Med-brn coar.-v.c. tuff											
				sh. Med-brn green colorous											
	Js / Jt			ls. Hy-brn sacc. v.c.-crystallized f.-f. limonite carb. mix											Js / Jt
				ls. wh-gy-pk. 75% " " " massive very hard											
				ls. " dk.gy 50% " " " "											
				ls. Hy-brn 10% re-crystallized											
				ls. gy-brn very little re-crystallized, hard, massive											
				ls. gy-brn " " " " " " fined brn ls. frags.											
220	Jt / Je			ss. red-brn fn.-med.gr.											Jt / Je
	TD 230														TD 230
240															

Dotted line Graphic Assay Solid Line - Probe

0% .20% .60

red ss upholes from form. THB

6/8 gnd. 1/10 mr/hr.

.10 mr/hr

2' wet cuttings samples

Hole No.	Sec.	Elevation	Page of Pages	No Insets	Date	Logged by
2200-200 A-9	29-13 9	6820	1 / 1	1	May 21, 56	R. McDo.

Geology

Willie Taylor.
1.5 hrs. stand by - washout no extra footage.

Footage	Symbol	Color	Description
0			blow sand
20			
40	Qal / Jb	ss. gy	fn-med-gr.
	ss	red-brn	fn-med-gr.
60	Jb? / Js.	ss wht.	fn-con gr.
	sh.	red-brn	aren, calc. streaks of gm. sh.
80			
100			
120			
140			
160			
180			
200	ss	wht.	fn. med. gr. wet
	Jt / Jt	ls.	med-gy partially re-crystallized
220			see inset for. core log.
240	Jt / Je		
	TD 250		
260			

Geologic Features: Diagenetic; Gelded; Faulted; Samples

Probe: Depth; Reading; Scale

Depth	Reading	Scale
THB	2	V
0	2	V
210	2	V
210.5	2	
211.0	2	
211.5	0	
212	2	
212.5	1	
213	1	
214	2	
214.5	4	
215	2	
217.5	2	
218	4	
218.5	4	
219	2	
234	6	
235.5	6	
236.0	8	
236.5	10	
237.0	18	
238.0	22	
238.5	4	
239.0	2	
TDP239		

Checked by Gamma Logger.

Scaler: Interval; Assay

Graphic Log: Description

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Qal
Jb
Jb
Js
Jt
Jt
Je
TD 250'

.05 mr/hr.

.05
.05
.10
.05
.10
.15
.09
.10
.10
.09
.06
.05

336-338

core

e .14% U3O8 in fracture-blebs.

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
2200-200	29 12-9	2 2	5/2/56	RMM

Footage From	Footage To	Formation	Geology Description	Samples
210	212.4	Jt.	ls. aren, lt-med.gy, sltly re-crystallized, transition zone	
212.4		Jt.	ls. aren (sltly) thin (1"-7") bedded, irregular, fractured, healed w/ calcite x-tals.	
	219	Jt.	E 25% re-crystallized.	
219	219.9	Jt.	ls. argill. med-lt.gy. crenulated, very irreg. bedding, muddy	
219.9	221	Jt.	" " " " " " " " " "	
221	226	Jt.	ls. thin (1/4-1/2") crenulated bedding - med-dk. gy. muddy	
226	230.6	Jt.	ls. thin-med bedded - (1-7"), sltly re-crystallized muddy	
230.6	230.8	Jt.	ls. re-crystallized to calcite, sltly mineralized, tyuyamunite	
230.8	235	Jt.	ls. essentially same as 226-230.6	
235	235.4	Jt.	essentially same as 230.6 - 230.8	
235.4	237.2	Jt	ls. thin - med. bedded, (1-7") sltly re-crystallized muddy	
237.2	237.9	Jt.	ls. " " " " " " " " thin seams	Split core & assayed.
	237.9	Jt	rose tles of tyuyamunite	
237.9	240	Jt.	essentially same as 235.4 - 237.2.	
240	250.6	Je	ss. purple, calc. fn-med.gr.	
240.6	250	Je.	gy. yell red brn. bedded, fn-med.gr.	

A 10

Hole No.	Sec.	Elevation	Page of	Pages	No Insets	Date	Logged by
2400-200 A-10	29 13-9	6836	1	2	0	May 7, 1986	RMM

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
0	Qal						
	Jb	ss. Thin-med fn. med gr. (thin bedded)					
60		sh. Thin-med.	dk gn.	streaks			
		ss. Thin-med fn-med gr.					
180	Jb?						
	Js	sh. Thin-med.	dk gn.	calc.			
	Jb						
	Jt	ls. H. indigo vc-cry.					
		ls. H. indigo					
		ls. H. tan					

Probe / Scaler

Depth	Reading	Scale
Tomcat TMB	8	
0	8	
186	8	
186.3	12	
197.2	14	
244	18	
244.5	20	
245	40	
245.5	18	
246	22	
246.5	25	
247	30	
247.5	20	
248	20	
248.5	20	
249	22	
249.5	16	
250	20	
250.5	20	
251	28	
251.5	22	
252	18	
252.5	16	
253	16	
257.5	16	
258	22	
258.5	28	
259	22	
259.5	18	
289.4	18	

Assay Foot Interval

Graphic log / Description

Dotted line Graphic Assay
Solid Line - Probe

0% .20% .60

Qal
Jb
Jb?
Js?
Js
Jt

bk. fnd. .15 mr/hr.

.15 mr/hr at 4" Hinge on sample

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2400-200 A-10	29 13-9	6836	2 2	0	May 7, 1956	R.M.M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval	Scaler Foot	Assay	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)
260		ls.	dk.gy-bn.	v. slt. alteration, dense,												
	Jt	ls.	dk.gy	very slt. alteration, very dense.			2' wet samples									
		ss.	dk.gy	slt.gy tend, some calc. rhombs, slt. re-crystallization										Jt		
	Jc	ss.	Med.brn	fn.-m.J gr.										Jc		
280						.15 mr/hr										
							4' wet samples									
	TD 290'													TD 290'		

0 260 280 40 60 80 100 120 140 160 180 200 220

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2600-200 A-11	29/13-9	6846	1 / 3	1	5/21/56	R.M.M.

Geology: Rig 5, Woody

Probe: Depth, Reading, Scale

Scaler: Foot Interval, Assay

Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Graphic log	Description
0	Qal			Blow Sand.					Qal
	Jb	ss	grey	fn-med. gr.					
80	Jb / Js.	sh	red-brn. green, calc, streaks of gns sh.						Jb / Js
200						.05 mr/hr bkgnd			
230	Js / Jt.	sh. / ls.	red-gy very calc / mottled gy, fn partially re-xtallized			45 mr/hr	core		Js / Jt.

see inset for core Log.

Hole # Sec.

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2600-200 A-11	29 13-9	6846	2 3	1	5/21/56	RMM.

Geology: Footage, Formation, Type of Rock, Color, Description, Diagnostic Features, Geiger, Samples Taken

Probe: Depth, Reading, Scale

Scaler: Foot Interval, Assay

Graphic log, Description

Dotted line: Graphic Assay
Solid Line - Probe
0% 20% 60

Footage	Formation	Type of Rock	Color	Description
260	Jt.	Ls.	med-dk gy	partially re-crystallized see inset for core log
280 20	Jt / Je / TD 283	ss.	gn-gy	fn-med gr.
300 40				
60				
80				
100				
120				
140				
160				
180				
200				
220				
240				
260				

Geiger: 4 gm 50 → ← end

Samples Taken: end

Probe Depth: THB 2, 0, 1, 283, 2, 244, 4, 7, 278, 4, 278.2, 6, 279.3, 4, 283, 4, TDP 283

Scaler Scale: 2, 2, 2, 4, 4, 4, 6, 4, 4

Graphic log: Je, Jt, Je, TD 283

Dotted line: 260, 280 20, 300 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
2600-200	29/13-9	3 3	5/21/56	RMM

Footage From	Footage To	Formation	Geology Description	Samples
243	249.5	Js.	Js-Jt. transition, red-gn-~~by~~ ss, argill, very calc.	
249.5	~~2.256~~	Jt	ls. med. dk.gy, 50% re-crystallized, calc. xtals to 1"; ~~tr~~ some black specks (carbon or Fe?)	
256	263.2	Jt.	ls. dk.-med.gy, partially re-xtallized, green, gn & lt.red sh. gally, fractured resembles transition	
263.2	272	Jt.	ls, med-dk.gy, dense, partially re-crystallized, tr. fl(?) vert. frac. red mineral (limonite?) & calc. xtals along fractures & bedding planes	
272	272.2	Jt.	ls, 100% re-xtallized, lattice formation of colorless calcite xtals, gn. mineral (clay?) & pyrite	
272.2	275.7	Jt.	ls.; dk-gy - med.gy. 100% re-xtallized, muddy, tr. clay, thin, irreg. bedding.	
275.7	275.9	Jt.	ls 100% re-xtallized same as 272-272.2	
275.9	276.5	Jt.	same as 272.2 - 275.2	
276.5	277	Je	ss, purple, fn-med.gr.	
277	283	Je	ss, red, purple & green banded, fn-med.gr.	

Drawing No. 793

Hole No.	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
2800-200 A-12	29 13-9	6960	1 2	0	May 7, 1956	RMm

Geology — Driller: Dave Hounum Rig 11

Footage	Formation	Type of Rock	% Cover	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0	Qal	blow sand						THB	20	V			Qal.	
	Jb	ss	red-brn.	fine-m.-lgr. argill.				276	20	V				
								277	18					
								278	18					
								279	22					
								280	16					
								281	22					
								282	20					
								283	18					
								284	14					
								285	18					
								286	16					
								287	18					
								288	18					
								289	20					
								290	18					
								291	12					
								292	16					
								293	16					
								294	18					
								295	22					
								296	20					
								297	26					
								298	22					
								299	32					
								300	18					
								301	18					
60	Jb / Js.		h.	red-brn.	aren.			302	18				Jb / Js.	Jb / Js.
								Blank-erratic 14-24		Scale				
80														
			sf.	red-brn.	coarse-c.-vcg. gr. wet.									
100														
			~~co.~~	~~red-brn.~~	~~Coarse gr. wet~~									
			sh.	red-brn.	aren.									
120			sh.	white ~~mottled~~	~~aren~~ f.-m. red. gr. wet									
			sh.	red-brn	aren. thin streaks (1/2 wet) s. continues to 276'									
140														
160														
180														
200														
220														
240														

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

cont on pg 2

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2800-200 A-10	29 13-9	6860	2 2	6	May 7, 19	RMM

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260	Jbi Js	sh	blue-blk	aren - streaks Cl'th, ck brn, sand		Bkgrd .03-.10 mr/hr	
280 ~~20~~	Js / Jt	ls	white	partially re-crystallized			
		ls	"	75% ave - dolomitized			
		"	"	" " "			
		"	"	" " "			
		"	"	" " "			
		"	dk gr	dense very fine grained gr corresponds w/ thin bedded ls found in core holes		.05-.10 mr/hr	2' Dry pkg Sample 1/8 split
300 ~~40~~	Jt / Je / Jb / Je	ss	red-brn	f-med gr			
320 ~~60~~	TD 310						

Probe: Depth, Reading, Scale

Scaler: Interval, Foot, Assay

Graphic log	Description
	Js / Jt
	Jt / Jc
	Je / TD 310

Dotted line Graphic Assay
Solid Line - Probe

0% .20% .60

0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2900-200 A-13	28 13-9	6866	1 / 3	1	May 21, 1956	RMM.

Rig 11.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0				Hannum, Potter				THB 0 / 288 / 306 / 307 / 307.5 / 308 / 328 / TDP 328	2 / 2 / 2 / 2 / 4 / 8 / 2 / 4 / 2	5 / 7				
	Qal		sx grey	fn-med. gr										Qal / Jb
120				sh ribbon, streaks of wet brn sand, gn. sh. aren, calc.										Jb ?-?-?-? / Js.
				ss brn. fn-coarse gr. wet.										

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

cont on pg. 2.

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
2910-200 A-13	29 13-9	6866	2 3	1	5/21/56	RWM

Hanna #, Rig 11.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
260		ss	brn.	f.n. cor. g.r. wet										
280 ~~290~~	Js													Js
	Jt Js trans	ss	dk. gy.	dense, partially re-crystallized a-en. Phaly.		.05 mr/hr	cored							Jt trans
300 ~~310~~	Jt			see inset for core log.										Jt
320 ~~330~~	Je	ss	brn.	f.n. mod. g.r. in streaks			Pingree							Jt Je
340 ~~350~~	TD 330													TD 330

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660 680 700 720 740 760 780 800 820 840 860 880 900 920 940 960 980 1000 1020 1040

Inset Sheet

Hole No	Sec.	Page of Pages	Date	Logged by
2900-200	29 13-9	3 3	5/21/56	R. M.m.

Footage From	Footage To	Formation	Geology: Description	Samples
288	294	Js.	ss, H gy, fn-med.gr. calc, comm. thin - mod. bedded.	
294	388.6	Jt.	ls. med-dk.gy, partially re-crystallized (80%) thin-mod. bedded. few calcite x-tals.	
388.6	302	Jt.	ls med-dk.gy, 40% re-crystallized, thin, reg. platy bedding - muddy.	
302.	306	Jt.	ls. med-dk.gy. alt lt-dk bands, slight re-xtallization, muddy	
306	306.1	Jt.	ls., re xtallized to calcite, mineralized(?) tyuyamunite? or limonite?	
306.1	309.2	Jt.	ls., blue gy. thin bedded dense.	
309.2	309.7	Jt.	ls, re-crystallized to calcite, mineralized: (tyuyamunite or limonite?)	
309.7	313.6	Jt.	ls. essentially same as 306.1 - 309.2	
313.6	314	Je	ss, purple, fn-med.gr. calc.	
314	318	Je	ss. red-brn fn-med.gr.	

Drawing No. 793

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3000-200 A-14	29 13-9	6877	1 2	0	5/21/06	R.M.M.

Hannum Rig 11
Plug

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
0														Qal
20	Qal	ss	lt.gy	Blow sand. f-c.w.gr. hard.									Blow sand	Qal
100		sh	red-brn	aren										
		ss	gy	fn-med.gr.										
160		sh	red-brn	aren, calc. streaks of gn. sh.										lb / ss

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

0 20 40 60 80 100 120 140 160 180 200 220 240 260

Hole No.	Sec.	Elevation	Page of Pages	No Insets	Date	Logged by
3000-200 A-14	29 13-9	687.7	2 2	0	5-31-56	R. Kaiser

Geology: Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Foot Interval | Assay

Graphic log | Description | Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)

Footage	Formation	Type of Rock	Color	Description
280		sh	red-brn.	aren, calc.
280 20		ss	brn.	f-m-med-gr.
		sh.	red-brn.	aren, very calc. streaks of gn. sh.
300				
	Js			
	Jt	ls.	gy-gy	aren, shaly, slt. re-crystallization (transition
		ls.	Mgy-br	re-xtallized (90%) abund. calc. frags.
320		ls.	bro-gy	dense, 10% re-xtal. few calc. frags.
320		ls.	gy-brn.	dense, 15-20% re-xtalized, calc. rhomb. frags.
		ls.	brn-gy	dense, slitly (-50%) re-xtallized, muddy?
		ls.	dk. gy	dense, no appreciable re-xtallization.
		ls.	dk. gy.	thin bedded, 10% re-xtallized. slitly. aren.?
	Jt	ls.	gy-gy.	aren. thin bedded. slitly re-xtallized
	Je			
340				
	TD 350.			
360				

Probe readings: THB 0; 2; 2; 325 2; 326 6; 327 2; 330 2; TDP 350

Scale: 1 (arrow down)

Assay: .05 mi/hr; .05 mi/hr; 2' wet formation sample

Graphic log: Js; Jt; Jt; Je; TD 350

Exaggerated

Depth scale: 280, 300, 320, 340, 360, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260

Hole No	Sec	Elevation	Page of	Pages	No Insets	Date	Logged by
3100-200 A-15	29 13-9	6880	1	3	1	May 13, 14 56	[illegible]

Geology

Footage	Formation	Type of Rock	Color	Description	Structures	Diagenesis	Ga Ger	Sorting Texture	Probe Depth	Probe Reading	Scale	Scaler Interval	Assay Footage	Geophysics	Graphic Log	Description	Dotted Line Graphic Assay Solid Line - Probe 0% 20% 60
0	Qal			blow sand.												Qal	
	Jb	ss	gray	f.m.c.a.v.gr.													
20																	
40																	
60																	
80				ss. brn. f.m.c.a.v.gr.													
100																	
	Jb			sh. red-brn. aren. calc. gn. sh.												Jb? Js?	
120																	
140																	
160				ss. lt.gy. f.m.c.a.v.gr. wet.													
	Jb? Js?			sh. red-brn. aren. calc. streaks of gn. sh.													
180																	
200																	
220																	
240																	
260																	

Hole No	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
3100-200 A-15	29 13-9	6880	2 3	1	May 18, 1956	RMM

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260		sh.	red-brn,	aren, calc, st. coal w. of g.n. sh.			
280 20							
300 40							
320 60	Js / Jt	ls.	red-dkg	fg. dense, re-crystallized, muddy, trashy			
				see inset for Geol log			
340 80	Jt / Je	ss.	reddish	fn-med-gr.			
	TD 345						
360 100							
380 120							
140 0							
160							
180							
200							
220							
0							
0							

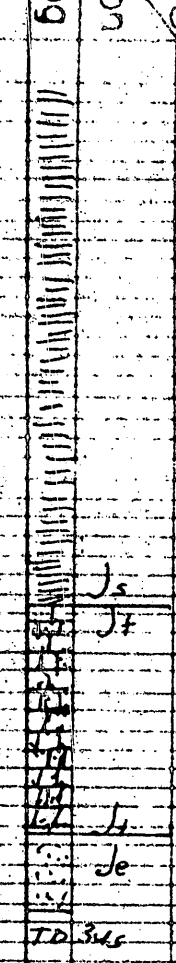
Probe

Depth	Reading	Scale
THB	0	HA
0	0	
1		
213	0	HA
214	4	
2		
337	4	HA
338	2	HA
2		
345	2	HA

Scaler

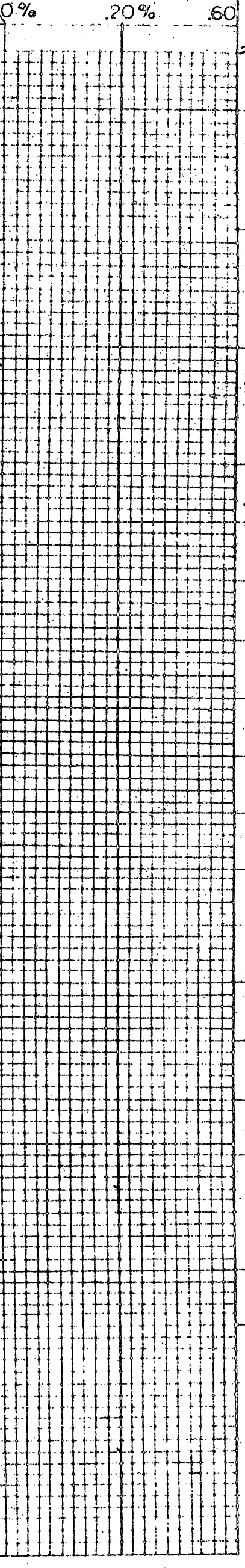
Foot Interval	Assay

Graphic log



Description

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60



Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
3100-200 A-15	29 13-9	3 3	May 18, 56	RMM

Footage From	Footage To	Formation	Geology: Description	Samples
305	313	Js.	mudstone, red-gy, aren, calc. gn. clay galls.	
313	318.5	Js.	" Hgy. aren. calc. fe-red streaks.	
318.5	325	Jt.	ls. dk-med. gy thin, irreg. bedded, ~~sltly~~ re-crystallized (40%	
325	335	Jt.	ls. med-dk. gy thin, irreg bedded, maddy, trashy, sltly re-crystallized at 334, re-crystallized zone .1' thick	
335	338	Jt.	ls. med-dk. gy, dense, thin, irreg bedding, maddy, trashy	
338	338.2	Je	ss, purple, fn-med-gn calc.	
338.2	343	Je	ss gelle with banded, fn-med. gr.	
343	345	Je	ss, red brn, fn-med. gr.	

Drawing No. 707

Hole No	Sec	Elevation	Page of	Pages	No. Insets	Date	Logged by
3200-200 1A-16	29 13-9	6882	1	2	0	May 8, 1956	RMM

Geology — Rig 11 — Hannum

Probe — Scaler

Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken | Depth | Reading | Scale | Interval Foot | Assay | Graphic log | Description

Dotted line: Graphic Assay
Solid Line - Probe
0% .20% .60

0 — Qal — Blue sand.

Probe on other page

20 — Qal — Jb — ss. brn. fine-coarse

40

60

80

100

Jb / Jb / Js — ss. gray fine-coarse, wet
shale with occasional thin streaks of brn. moist ss.

120

140

160

180

200

220

240

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3200-200 A116	29 13-9	6882	2 2	0	May 8, 1956	R Kun

Geology: Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Interval Foot | Assay

Graphic log | Description | Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

Footage	Formation	Type of Rock	Color	Description
260		sh.	red-brn	streaks of wet sand.
280				
300				
320				
340	Js / Jt	ls.		become calcareous near contact.
		ls.		dk. gy. black. be very coarse & very hard. appar. thin-bedded.
		ls.		dk. gy. brn. " " coarse & very hard, little re-crystallization
		ls.		dk. brn. to " " coarse & very hard, little re-crystallization
		ls.		dense - little re-crystallization
360	Jt / Je	ss.		~~[illegible]~~ Hardbrn. fn. - medgr
	TD 366			
400				

Probe Depth: THB, 9, 7, 329, 330, 332.5, 333, 333.5, 334, 334.5, 335, 335.5, TTP, 337.5

Reading: 12, 12, 12, 12, 14, 20, 30, 30, 20, 24, 24, 12, 12

Scale: 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12

Graphic log: Js / Jt; Jt / Je; TD 366

Description: Bkgrd. 0.7 mr/hr; 0.8 mr/hr at wet sand streaks; ← (exaggerated)

Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

Footage	Dotted line Graphic Assay Solid Line - Probe
260	
280	
300	
320	
340	
360	
380	
400	
140	
160	
180	
200	
220	
240	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3300-200 A-17	29 13-9	6877	1 / 3	1	May 10, 1956	R. M. M.

Geology: Footage, Formation, Type of Rock, Color, Description, Diagnostic Features, Geiger, Samples Taken

Probe: Depth, Reading, Scale

Scaler: Foot Interval, Assay

Graphic log, Description

Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)

Footage	Formation	Type of Rock	Color	Description
0	Qal			Blow sand.
	Qal / Jb	ss	lt. gy	fn - cor. gr. an clay galls
120				sh. red-brn. green streaks of brn. ss.
				ss. brn. fn. - med. gr.
				ss. white fn. - cor. gr. wet
				ss. brn. fn. - med. gr. hard.
160				sh. red-brn. green, brn. streaks of sandstone

Probe on pg. 2

Qal

H-1 Brn. Jb grds, unc

Cont'd on pg. 2

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3300-200	29 13-9	6877	2 3	1	May 10, 1966	EMM

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260		sh	red-bro	aren, streaks brn. ss.			
280							
300							
320		ss.	wht	fn-med gr			
Transition zone	Js	Jt		ls. well-mtl gy re-crystallized, sol. channels lined with calcite, abund carb mat or fluorite		.09 .02 .09	
340				See Inset for Core log			
	Jt			mod-dk gy mic. tuyamanite		.10 .12 .04 .04	
360	Je			sh. lt red-yellow fn-med gr.			
original	TD 357			Hole drilled in deeper and worked			
Final	TD 361						
380	TD 380						
400							
160							
180							
200							
220							
240							
260							

Probe

Depth	Reading	Scale
Tomcat		
THB	12	V
9	12	V
72	12	V
72	14	V
327	15	V
327	18	
328	18	
329	18	
330	20	
341	18	
342	22	
343	18	IV
344	18	V
345	18	
346	18	
347	18	
348	18	
349	18	
350	20	
351	18	V
352	18	
353	18	
354		
TDP 350		
Did not clean hole causing badly.		
Hole fell in washed & re-probed		
Re-Probe down hole		
THB	12	V
9		
340	12	V
352	12	V
353	12	V
361	12	V
TDP 361		
up hole		
361	12	V
343	12	
342	20	
341	20	
340.5	14	
340	14	
339.5	14	
339	12	
338	12	
337	18	
336	14	
327	14	
326	12	
THB Rd	12	V

Scaler

Interval Foot

Assay

Graphic log

Description

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Js
Jt
Je
original TD 357
Final TD 361

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
3300-200	29 13-9	3 of 3	May 10, 1956	EMM

Footage From	Footage To	Formation	Geology: Description	Samples
327	331	Jo? H?	ss. (?) very calcareous, fn-med.gr. transition zone Js to Jt	
331		Jt.	ls. lt.-med.gy. dense, abund. solution channels, calc. xtals abund. blanket coarse mat	
	337	Jt	highly altered.	
337	335.5	Jt	ls. lt-dk.gy- alt lt.dk. bands, bands (bedding planes?) crenulated & flat. curb. mat	calcite xtals in fracture zones
335.5	348	Jt	ls. lt-dk.gy, dense, massive bedded	
348		Jt	ls. thin bedded, re-crystalized, fretwork weathering. wht & brn & yel. calcite xtals, rhombs	
	348.3	Jt	prominent, abundant tyuyamunite in fractured cleavage planes, also in yellow calcite "contact zone"	
348.3	351.5	Jt	ls, thin - med bedded, dense, little re-crystallization	
351.5	357	Jc	ss, lt. red, gy, yel, bedded fn.-med.gr. calc.	

Drawing No. 793

Hole No	Sec	Elevation	Page of Pages	No. Insets	Date	Logged by
3400-200 A-18	29 / 13-9	6877	1 of 2	0	May 9, 56	K Klum

Geology: Hannum Rig 11

Footage	Formation	Type of Rock	Color	Description	Geologic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Scaler Scale	Scaler Interval	Assay Foot	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe (0% … 60)
0	Qal			blow sand				Babbitt THD 0 ↓ 365	0 0 ↓ 0					Qal	
20	Qal / Jb	ss.	red-brn	f.n.-med. gr. argill.									Blow sand	Qal	
40															
60															
80															
100															
120		sh. / ss.	red-brn, lt. gy	arcn, cor-v.c. gr. wet										Jb, undif.	
140		sh. / ss	red-brn, brn-	arcn, wet, fn-cw. gr.											
160															
180															
200															
220															

cont

Hole No.	Sec.	Elevation	Page of Pages	No Insets	Date	Logged by
3400-200 A-18	29 13-9	6877	2 2	0	May 9, 1956	R. Kerr

Geology: Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Foot Interval | Assay

Graphic log | Description

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
0		Sh	red. brn	avery			
280 20						6 K spot	
300 40						.08 mr/hr 6K	
320 60	Jbs / Jt	ls.		Hard, gray, crystalline, little recrystallization			
		ls.		Medium gray, little recrystallization, very fine to med.			
340 80						1.08 mr/hr	2" wet. cuttings
	Jt	ls.		Medium gray, little recrystallization			
360 100	Je	ss.		Hard, buff, fine-med. grain			
	TD 365						
400 120							
140							
160							
180							
200							
220							
240							

Graphic log: Jbs; Jt; Jt; Je; TD 365

Scale: 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3500-200 A-19	29 13-9	6882	1 3	1	May 11, 1956	R.M.M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Scaler Assay	Graphic log	Description
0														
20	Qal / Jb	as	wht-lt gy	f.m.m.l.gr.										Qal / Jb
40														
60														
80														
100														
120														
140		as	brn.	fa-coarse	very wet									
160	? Jb / Js ?	Jb	relative	aren.										Jb / Js contact indefinite
180														
200														
220														
240														
260														

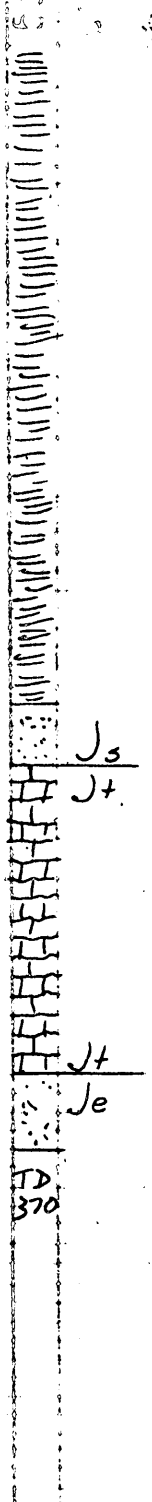
Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

(cont)

3500-200 | 29/13-9 | 6882 | 2 | 3 | 1 | May 11, 1956

Depth	Lithology	Description
260	sh.	red brn streaks of gyn. sh. aven.
280		
300		
320	ss.	white fn-con. gr. calcareous
	Js / Jt ls.	Hoedgy re-crystallized. Transition? - 330-340 see inset for core log.
340		
	ls.	dk. gy brn. slt. re-xtallization
360	Jt / Je	
380	TD 370	
140		
160		
180		
200		
220		
240		
260		

Depth	Sample	Code
THB	12	V
0	12	V
330	12	V
331	18	V
336.5	20	V
338	20	V
339	20	
340	24	
340.5	26	
341.0	22	
342.5	22	
342	22	
343	18	
360	19	
360.5	20	
361	14	
364.5	14	V



60
80
120
140

Log Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
3500-200	29 13-9	3 3	May 11, 1956	RMM

Footage From	Footage To	Formation	Geology: Description	Samples
330	340	Jeor Jt.	transition ls, green, ranges from lt. gy to red, argillocally.	
340	343	Jt.	ls. lt.-med gy muddy, green crenulated bedding slt re-crystallization	
343		Jt.	lt. brn-gy, very altered & re-crystallized, slickensides, calc. faces, tr. fluorite	
	346		bedding thin & crenulated.	
346		Jt.	~~same 343-346~~ ls, brn. gy, abund. calcite x-tals on fracture & bedded planes,	
			crenulated bedding, tr. fluorite, very re-crystallized, few healed (ie. filled w/calcite	
			crystals) fracture planes, vertical, "contact zone" at 358.7.	
	362	Jt	strange green mineral in "contact zone".	
362	367.8	Je	ss. calc, lt. gy-gr. fn-med-gr.	
367.8	370	Je	ss, red, fn-med. gr.	

Drawing No. 793

Hole No	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3600-200 A-20	29 13-9	6884	1 2	0	May 10, 1956	[illegible]

Geology: Footage | Formation | Type of Rock | Color | Description | Diagnostic Features | Geiger | Samples Taken

Probe: Depth | Reading | Scale

Scaler: Foot Interval | Assay

Graphic log | Description

Dotted line Graphic Assay Solid Line - Probe 0% 20% 60

0 — Qal — Blow sand.

Probe on pg. 2.

20 — Qal / Jb — ss. vel-brn. fn-cor. gr. orgill.

Qal / Jb

40

60

80 — sh. red-bra. green, streaks of wet brn. ss.

100

120

140

160

180

200

220

240

260

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3600-200 A-20	29 13-9	6884	2 of 2	0	May 10, 1956	R. M. M.

Geology

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken
260	Jb & Js	sh	red-brn.	streaks of brn. ss. grey sh.			
280							
300							
320		ss.	brn.	med-cor. gr. wet			
340	Jt	ls.	wht-lt. gy. green, partially re-crystallized, abund calc. shells				
360		ls.	lt-dk gy-brn. less re-x tal. than above, dense, thin bedded				
		ls.	dk-gy-brn. very little re-crystal. thin-med. bedded dense				
		ls.	dk-gy-brn very little re-crystal. thin-bedded, occas. red flakes.				
	Jt	ls.	lt. gy-brn. red-gy. slightly re-x tal. ls., some red trngs.				
380	Je	ss.	lt. red-brn. fn-med. gr.				
	TD 380						

Probe

Depth	Reading	Scale
THB	14	
0	14	
333	14	
353.5	16	
354	16	
TOP 379.5	16	

Scaler: Foot Interval

Assay

Graphic log

Description

Dotted line Graphic Assay Solid Line - Probe

0% .20% .60

.10 mr/hr

.10 mr/hr

2' wet poly samples

Js

Jt

Jt

Je

FD 380

Hole No	Sec	Elevation	Page of	Pages	No. Frac.	Date	Logged by
3700-200-A-21	29 13-9	698.5	1	3	2	May 14, 1956.	R.M.a.

Cored.
Rig 7, Willie Taylor.

Footage	Formation	Type of Rock	Color	Description	Geology	Geophys.	Geochem.	Geology	Core Recov.	Probe Depth	Probe Reading	Scale	Core Interval	Core Assay	Geophysics	Geochemistry	Geology	Core Assay and Core Description
0	Qal			blow sand.						T.H.S.	0							
										uphole over Labarge Lava								
										2	2							
										379.9	2							
										379.	2							
										378	2							
										377	2							
										376	2							
										375	2							
										374	6							
										373.5	34							
										373	18							
										372.5	8							
										372	4							
										371	4							
										370	4							
										369								
20	Qal / Jb	ss.	wht.	fn-cor. gr. urg ill.													Blow sand / Qal / Jb.	
40																		
60																		
80																		
100																		
120																		
		ss	brn.	fn-cor. gr. wet														
140																		
160																		
180																		
200	Jb / Js			contact approx. sh. red-brn. aren, streaks of gn. sh. calc. locally													Jb / Js.	
220																		
240																		

Continued pg. 2.

3700-200 A-21 29/13-9 0885 2 3 1 May 14, 1986 Elmw.

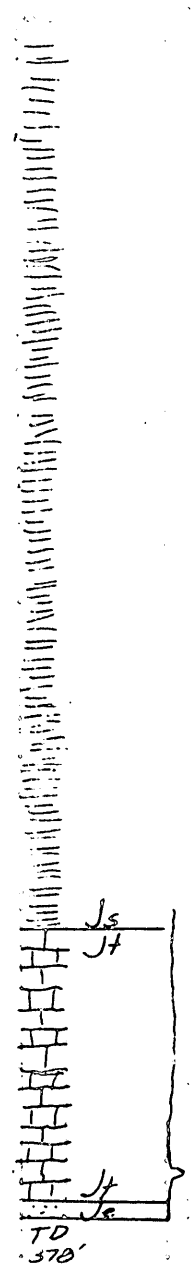
sh. red-brn aren, calc. streaks of gn sh.

bkgnd. .08 mr/hr.

.08

.10

core



Js
Jt ← Transition zone.
— Transition zone
True Jt

see inset for core log
re-crystallized

Jt → ← — tyuyamunite & Fluorite.
Je
TD
378'

260 280 300 320 340 360 380

Inset Sheet

Hole No	Sec	Page of Pages	Date	Logged by
3700-205	29	3 of 3	[illegible]	[illegible]

Footage From	Footage To	Formation	Geology: Description	Samples
349	353.7	Jt.	transition zone - redish. green, calcareous sh	
353.7	357.5	Jt	ls. argillaceous, lt. med. gy. thin, irreg. bedding (crenulated) partially re-crystallized	
357.5	361	Jt	ls. dk-med. gy. irreg. crenulated bedding, very re-xtalized, calcite x-tals in old fracture planes	
361	362.3	Jt	ls dk. gy-bro, thin, irreg. bedding, almost 100% re-crystallized, calc. xtals in recent fractures	
362.3	364	Jt.	ls. lt. med. gy. thin bedded, 50% re-crystallized, bedding crenulated, calcite xtals in trace	
364	365.5	Jt.	ls dk. gy-bro thin, crenulated bedding, almost 100% re-crystallized, calcite xtals in recent fractures	
365.5	369	Jt.	ls, med.-dk. gy thin (1 cm) bedded, dense, muddy, little re-crystallization trashy, limonite on recent fracture	
369	369.2	Jt.	ls, lt gy, re-crystallized (100%) xtals formed in vert. columnar struct tr. fluorite	
369.2	372.5	Jt.	ls, med-dk. gy thin (1-5 cm) bedded, sltly re-crystallized few calcite veinlets & lim in fractures	
372.5	372.9	Jt.	ls. lt. med. gy, 100% re-crystallized, tr. fluorite & tyuyumuite xtals coarser	
372.9	376.5	Jt.	ls. med-dk. gy thin (1-5 cm) bedded, sltly re-crystallized, few calcite & limonite stains on fractures	
376.5	379	Je	ss. red-brn, argill fn gr lim. stained at 2 grs	

Drawing No. 793

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3800-200 A-22	19 13-9	6887	1 2	0	5-11-56	R M M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Scale	Scaler Foot Interval	Assay	Graphic log	Description
0	Qal			Blow sand									Blow sand	
20	Qal / Jb	ss.	brnish banded.	fn-cor-gr. bands 1-3 ft. thick slt'ly argill.										Qal / Jb
40														
60														
80														
100														
120														
140	Jb / Js	sh.	red-brn.	aren. calc.										Jb? / Js?
		ss.	lt-red gy.	fn-cor-gr. wet										contact questionable
160														
		sh.	red-brn.	arenr.										
180		ss.	red-brn.	fn-v.c.gr. cor. wet										
		sh.	red-brn.	arena, calc. gr. sb.										
200														
220														
240														
260														

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

(cont)

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
3800-200 A-22	29 13-9	6887	2 2	0	May 11, 1956	Rhum

Geology — Hannum Rig 11

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Interval Foot	Assay	Graphic log	Description
260		sh.	red-brn.	arcn., calc. streak of g.n.sh.				TH β 0	12	V				
								355	12	IV				
								356	12	IV				
								TD 394.8	12 12	V V				
280														
300														
320														
340														
		sh.	red-brn.	arcn. calc. increasing line orgnt.									Jb	
360	Js / Jt	ls.	lt. red-gy	slt. ly re-crystallized									Jt	
		ls.	red-gy-brn.	very re-crystallized.										
		ls.	lt. red-gy	slt. ly re-crystallized										
380		ls.	lt. gy-brn	slt. if any re-crystallization										
	Jt / Je	ss.	lt. red-gy yel bands	fn-med gr.									Jt. / Je	
400	TD 395												TD 395	
420														
180														
200														
220														
240														
260														

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

.08 mg/gr — 2' wet pulp sample

Hole No.	Sec.	Twp.	Rge.	Elev.	Page	Of	Pages	No. Insets	Date	Logged by
3900-200	A-27	29 13.9	6840		1		3	1	May 15 1956	RBA

Depth	Log	Description	Geologic Age	Sample Description	Sample Recovery	Core Recovery	Core Description	Core Recovery
		Blow sand.					Blow sand	
20	Qal / Jb	ss H.gy fn-med.gr. argill					Qal / Jb	
40		ss brn.wet fn-cor.gr. wet.						
60								
80								
100								
120								
140								
160								
180								
200	Jb / Js.	? contact questionable Sh. red-brn. green, calc. streaks of gn. sh.					Jb / Js.	
220								
240								

Hole No.	Sec	Elevation	Page of Pages	No Insets	Date	Logged by
3900-200	29 13-9	6890	2 of 3	1	May 15 1956	RMN

Geology: Footage | Formation | Type of Rock | Color | Description

Probe: Depth | Reading | Scale

Scaler: Interval | Assay

Geology: Seepages | Geyser | Hydrothermal | Deposits | Veins

Lithologic Description

Dotted line Graphic Assay Solid line - Probe

0% 20% 60

Footage	Description
0	Sh. red-brn. aren., calc. streaks of go sh.
100	Js. sh. red-brn. aren., very calc. streaks of go sh.
Trans → Jt	Ls. ltgy dense, crenulated, re-crystallized
	Ls. ltgy thin alt. ltgy bands, slt'ly re-crystallized
120	Ls. dkgy very re-crystallized see inset for core log
	" " " " tr. tgy (?) acicular xtals
	Ls. ltgy-bn. slt'ly re-crystallized, trashy
Jt Je 140	Ss. red-brn. fa.-med. gr.
TD 140	

THB 0 → 400' 0

as marked

1.05 mi/hr

60 rev/min

Js Jt Jt Je TD 140

Dotted line 0 20 40 60 80 100 120 140 160 180 200 220 240 260

Inset Sheet

Hole No	Sec.	Page of Pages	Date	Logged by
3900 -200	29 13-9	3 3	May 15, 1956	R.M.M.

Footage From	Footage To	Formation	Geology Description	Samples
360	363	Js	mudstone, calcareous, area mottled red & gn.	
363	370.2	Jt.	ls. lt. med. gy, area, irreg, crenulated bedded, trashy, very re-crystallized	
370.2	378	Jt.	ls. lt-dk. gy, alt. thin (1-5cm) lt & dk. gy bands, sltly re-crystallized, Mnor Fl. dendrites at 371.5.	
378	387.9	Jt.	ls dk. gy, very re-crystallized to tuyamonite st. in large calcite rhombs (1") Fl. (?)	
387.9	388	Jt.	ls lt re-xtallized to calc. xtals, Tuyamonite(?) stain in x-tals	
388	390	Jt.	ls, lt. gy-brn very sltly re-xtallized, muddy, thin bedded, trashy.	
390	392.8	Jt.	same as from 388-390	
392.8	393.6	Je	ss, purple, fn-med. gn calc.	
393.6	400	Je	ss yell & gy lam, fn-med. gr.	

Drawing No. 793

Hole No.	Sec	Elevation	Page of	Pages	No. Insert.	Date	Logged by
4000-200 A.24	29 13-9	6897	1	2	0	May 12, 1986	R. Van Ness

Footage	Formation	Type of Rock	Color	Description	Sample Type	Sample Number	Sample Depth	Probe Reading	Scale	Interval	Assay	Blow Count	Blow Sand
0	Qal												Qal
20													
40	Qal / Jb	ss.	red-brn.	fn-med.gr. hard.									Jb
60													
80													
100													
120													
140	Jb (cont?)	ss	brn.	fn-c.v.gr. damp									
160	Jb / Js	ss.	red	streaks of brn. fn-med.gr. argill prob. shaly ss.									Jb / Jl
180													
200													
220													
240													
260													

cont.

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
4000-2000	29 13-9	6897	2 of 2	0	May 12, 1956	E. M. M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Probe Scale	Scaler Foot Interval	Assay	Graphic log	Description
260		ss	red	streks of brn. very argill, thin bedded fn-med.gr. prob. sandy shale ss.				THB 0	12					
								372	13					
								373	15					
280								412	14					
								TDP 412'						
300														
320														
340														
360														
	Js													Js
380	Jt	ls.		Hr-mdgy dense, partially re-crystallized										Jt
		ls.		Hr.rd-brn. dense, oltly re-crystallized										
400		ls		dk.gy-brn dense, partially re-crystallized										
	Jt	ls.		fawred frags.										Jt
	Je	ss.		Hr.rd-brn. fn-med.gr.										Je
420		TD 415												TD 415'

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

.05 mg/hr → 6 hrs/d .05 mg/hr

2' well plug sample

Hole No	Sec.	Elevation	Page of	Pages	No Insets	Date	Logged by
4200-200 A-25	29 13-9	6509	1	3	1	May 16 1956	[illegible]

Geology

Footage | Formation | Type of Rock | Color | Description | Features | Diagnostic | Geiger | Tracer | Samples | Depth | Probe Reading | Scale | Scaler Interval | Assay Foot | Graphic Log | Description | Dotted line Graphic Assay Solid Line - Probe (0% 20% 60)

0 — Qal — blow sand.

20

40 — Qal / Jb — Ht ss — Hgy fn-med-gr.

60

80

100

120 — ss rd-brn. fn-med-gr-wet

140

160

180

200 — Jb / Js — sh. red-brn. calc. grey streaks of gn. sh & wet brn. ss.

220

240

Qal / Jb — BLOW SAND

Jb / Js

Dotted line: 0% 20% 60

0 20 40 60 80 100 120 140 160 180 200 220 240

Hole No.	Sec	Elevation	Page of	Pages	No Insets	Date	Logged by
4200-200 A25	28 13-9	6909	1	3	1	May 16, 1956	R.A.M.

Geology

Depth	Lithology	Code	Description
260	sh	red-brn.	arg., calc. streaks of gnsh
400	Js / Jt sh	red-brn.	calc. streaks of gnsh. — Transition zone.
	ls.	lt.-mdg.	arg., argill., thin bedded, irreg. bedding
	ls.	lt.-mdg.	fractured, calc. xtals along fractures, irreg. bedded, re crystallized — see inset for core log —
420	ls.	med-dkgy	muddy, little re-crystallization
	Jt / Je / Ja	ss.	gy.-or.red. fn.-med. gr.
440	TD 437		

Probe

Depth	Reading	Scale
THB	0	
0	0	
423	0	
424	2	
426	2	
427	4	
428	4	
428	2	
430	2	
TDP 430'		

Scaler Assay

Interval 200

Geologic Log

Description

Plotted line Graphic Assay Bold Line - Probe

0% 50% 60

Samples

Geiger

Ocgnosic

Pressures

.05 mr/hr.

.05 mr/hr

core

Js

Jt

Je

TD-437

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
4200-200	29 13-9	3 3	May 17, 1956	EWW

Footage From	Footage To	Formation	Geology: Description	Samples
397	400	Js	mudstone, calcareous, green-gy.	
400	405	Jt	ls. muddy, arenaceous, irreg bedded, thin bedded, slt. re-crystallized	
405	416	Jt.	ls. muddy, trashy, fractured, fractures healed with calcite xtals, thin, irreg. bedding, lt. med. gy. 90% re-crystallized	
416	429	Jt.	ls. fn, reg. bedding, med-dk. gy, few healed fractures, recent slip planes, slthy re-crystallized	
429	430	Je.	ss, purple, calcareous.	
43	437	Je	ss, red, gn & yellow banded, fn-med. gr.	

Hole No.	Sec. Elevation	Page	of	Pages	No. Inserts	Date	Logged by
4400-200 A-2b	29 13-6 6011	1		2	0	May 15, 1956	R.M.M.

Depth	Geol. Age	Description	Sample Interval	Probe Spacing	Probe Scale	Scaler Assay	Geologic Log	Dotted line Graphic Assay Solid Line - Probe (0% – 60)
0	Qal	blow sand.		THB 0 2 440 441 442 443 444 445.5 446 446.5 459.7 TOP 459.7	2 2 2 2 4 6 8 8 10 12 2 2		BLOW SAND	
60	Qal / Jb	ss gy fn-med-gr. very hard, wet					Qal / Jb	
100								
140								
160								
200								
240								

4400-200 29/13-9 6911 2 2 0 May 15 RMW

Depth	Lithology	Description
260	ss. gy	fn-med-gr. very hard, wet.
280	ss brn.	fn-cr-gr. damp
300	Jb ? Js sh. brown	streaks of wet brn ss. aren, calc. toward base, streaks of gn. sh
320		
340		
360		
380		
400		
420	Js	same as above. very calc.
	Jt ls.	H-med-gy dense, partially re-crystallized (50%)
	ls.	lt-gy dense, 20% re-crystallized,
440	ls.	H-gy-med-gy-brn. slt-lg re-crystallized
	ls.	slt-gy- very little re-crystallization thin-bedded
	Jt	
	Je ss	H-red-brn. fn-med-gr.
460	TD 460'	
480		

.05 mr/hr

.05 mr/hr

5' wet cuttings samples

Jb ? Js

Js Jt Jt Je

.ept 98

TD 460

Hole No.	Page	Section	Date			
4600-200 A.27	29 13-a	6919	1	2	0	May 16, 1956 RMcG.

Depth	Formation	Description	Log
0	Qal	Blow sand.	BLOW SANDS
20			
40			
60	Qal	ss lt gy fn - med-gr. argill.	Qal / Jb
80			
100			
120			
140			
160			
180			
200			
220			
240	Jb / Js	sh. red-brn ~~begins~~ grn, calc. streks of grn sh.	Jb / Js
260			

Hole No	Coo	Elevation	Page of	Pages	No Insets	Date	Logged by
4600-200 A-27	29 13-9	6919	2	2	0	May 26, 1956	EMW

Dotted line - Graphic Assay
Solid Line - Probe

Probe Reading: THB 0, 439, 440, 463, 464, 469.9, TOP 469.9'

Probe Assay: 0% 20% 60%

Blot

Depth	Formation	Symbol	Color	Description
260	Js	sh	red-brn.	aren, calc. toward base, streaks of gn. sh.
440	Js	sh.	red-brn.	calc. (varg) aren.
	Jt	ls.	rpt-dkgy	dense, 50% re-crystallized few rhombs of calcite.
		ls.	lt.gy-bro	75% re-xtallized, tr. Fluorite black calc. rhombs
		"	"	" " " tr. Fl. black & wht. calc. rhombs.
		"	lt.bro	50% re-crystallized - few calcite xtals.
		"	dkgy-bro	10% re-xtallized, muddy, trashy
460		"	dk. gy-bro	slt'ly re-xtallized - muddy, trashy.
	Jt	"		
	Je			
	TD 480			

.05 muddy blend

.05 soft

Short plug 50 soft

Js

Jt

Jt

Je

TD 480

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
4800-200A28	29 13-9	6931	2 3	1	May 18, 56	E.M.M.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Samples Taken	Probe Depth	Probe Reading	Scaler Scale	Scaler Foot Interval	Assay	Graphic log	Description	Dotted line Graphic Assay Solid Line - Probe (0% .20% .60)
0				blow sand.									BLOW SANDS		
20															
40															
60	Qal / Jb		ss. gg	fg-cor-gr.										Qal / Jb	
80															
100															
120															
140															
160															
180	Jb / Js		sh. vel-brn. green, calc. shreaks of gnsh											Jb / Js	
200															
220															
240															
260															

cont on p. 2.

Hole No	Sec	Elevation	Page of	Pages	No Insets	Date	Logged by
4800-200 A-28	29 13-9	6931	1	3	2	May 18, 1982	RKM

Geology

Footage	Elevation	Color	Description	Diagrammatic Features	Geiger	Scintillometer Counts	Probe Depth	Probe Reading	Scale	Scaler Interval 500	Assay	Graphic Log	Assay	Dotted line Graphic Assay Solid Line - Probe 0% 40% 60
260			sh. red-brn. grey, calc. streaks of gn. sh.				THB 9	2						
280							483 484 484.5 485 485.4 485.0	2 2 2 2 2 2						
300														
320														
340														
360														
380														
400														
420														
440														
460			red-brn. green, very calc. streaks of gn. sh.											
	Js.		ls. lt. medgy, muddy, trashy, re-crystallized locally											
480			see Inset for core log.											
	Jt													
	Je		red-brn. fn. med. gr.											
500	TD 496													

0.5 mr/hr. background

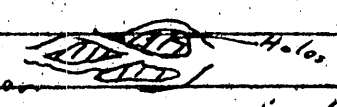
0.5 mr/hr.

cored

Js
Jt
Jt
Je
TD 496

Inset Sheet

Hole No.	Sec.	Page of Pages	Date	Logged by
4800-200 A-28	29 13-9	3 3	May 18, 1988	RMM

Footage From	Footage To	Formation	Geology: Description	Samples
466		Jt.	ls, lt-med.gy, dense, irreg. crenulated bedding, o the clay seams on bedding planes,	
	473.5		R-green, partially (30%) recrystalized, some slip planes along bedding planes	
473.5	478	Jt.	ls, lt. med.gy, thin, reg. bedding sltly re-crystallized	
478	478.8	Jt.	ls, dk.gy, thin bedded, carbonaceous, sltly re-xtallized	
478.8	479.2	Jt.	calcite, crystalline, crystallizes in tree work pattern, columns 	
479.2	482.5	Jt.	ls, massive, thin carb(?) streaks, med-dk.gy, muddy sltly re-crystallization	
482.5	482.8	Jt.	ls, black carbonaceous(?) dense	
482.8		Jt.	ls, dense, thin, reg. bedding, lt-med.gy, few fractures calcite & red mineral (limonite)	
	488		on fracture zones, muddy, tracky	
488	494	Jc	gy-yel. ss fn-med.gr.	
494	496	Jc	red brn ss, fn-med.gr.	

Drawing No. 793

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
5000 - 200	17-9 29	6941	1 / 3		5-29-56	DB

Hamum Rig #11

Geology

Footage	Formation	Age or Epoch	Color	Description	Features	Diagnostic	Geiger	Samples Taken
0								
20								
40				blow sand				
60	Qal / Jb							
80								
100								
120								
140				ss lt red very hard				
160								
180								
200								
220								
240	Jb / Js			sh red-brn streaks of ss.				
260								

Probe

Depth	Reading	Scale
THB	.01	Hxl
530	.01	

Scaler

Interval	Foot	Assay

Graphic log

Footage	Graphic log
0	
20	
40	
60	Qal / Jb
80	
100	
120	
140	
160	
180	
200	
220	
240	Jb ?-?- Js
260	

Description

Dotted line Graphic Assay
Solid Line - Probe
0% 20% 60

Footage	Description
0	
20	
40	
60	
80	
100	
120	
140	
160	
180	
200	
220	
240	
260	

Hole No.	Sec.	Elevation	Page of Pages	No. Insets	Date	Logged by
5000 - 200 A-29	13-9 29	6941	2 of 3	0	5-29-56	DB

Geology

Hanawm.

Footage	Formation	Type of Rock	Color	Description	Diagnostic Features	Geiger	Ticker	Samples	Probe Depth	Probe Reading	Probe Scale	Scaler Interval Foot	Scaler Assay	Graphic log	Description

Dotted line Graphic Assay
Solid Line - Probe
0% .20% .60

Depth	Footage
260	0
280	20
300	40
320	60
340	80
360	100
380	120
400	140
420	160
440	180
460	200
480	220
500	240
520	260

Sh red brn streaks of gand

JS
JT

ls gy brn dense recrystillized

ls brn-gy V. dense stly. recrystillized

ls brn. gy stly recrystillized clay galls

JS
JT

Hole No	Sec.	Elevation	Page of	Pages	No. Insets	Date	Logged by
5000 -200 A-29	29	6941	3	3	6	5-29-56	DB

Geology

Formation	Rock	Color	Description
Jt	ls	lt gy	stly recrystallized arenaceous
Je	ss	red	fn. med. grain

Probe: Scale: Interval: Scale: Recording: Depth: Geiger: Counts: Recovery: Lithology: Graphic Log: Structure

Dotted line Graphic Assay Solid Line - Probe

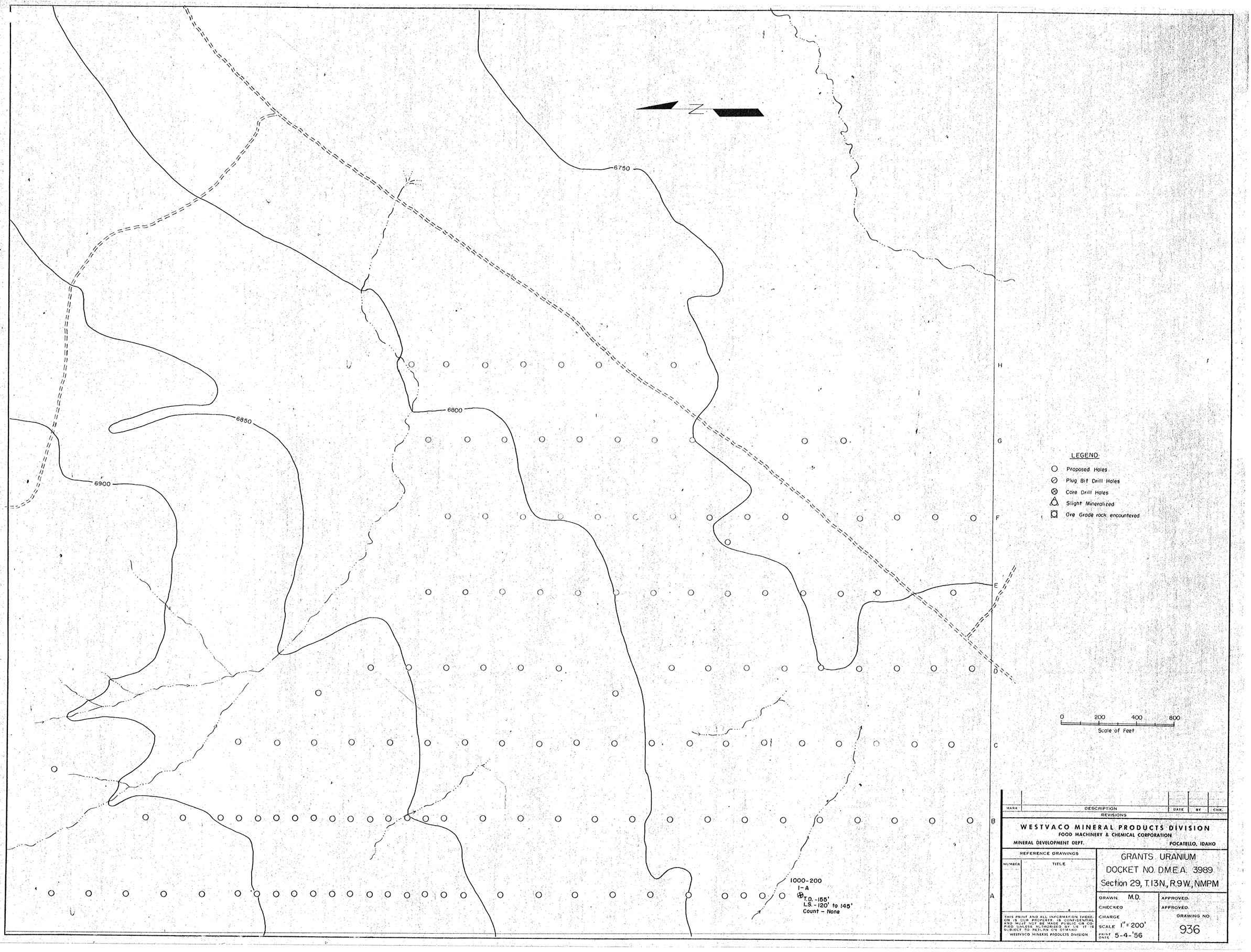
0% 20% 60%

JT

Je

TD 535'

520 540 40 60 80 100 120 140 160 180 200 220 240 260


N
6750
6800
6850
6900
H
G
F
E
D
C
B
A
LEGEND
Proposed Holes
Plug Bit Drill Holes
Core Drill Holes
Slight Mineralized
Ore Grade rock encountered
0 200 400 800
Scale of Feet
1000-200
1-A
T.D. -155'
L.S. -120' to 145'
Count - None
MARK
DESCRIPTION
DATE
BY
CHK.
REVISIONS
WESTVACO MINERAL PRODUCTS DIVISION
FOOD MACHINERY & CHEMICAL CORPORATION
MINERAL DEVELOPMENT DEPT.
POCATELLO, IDAHO
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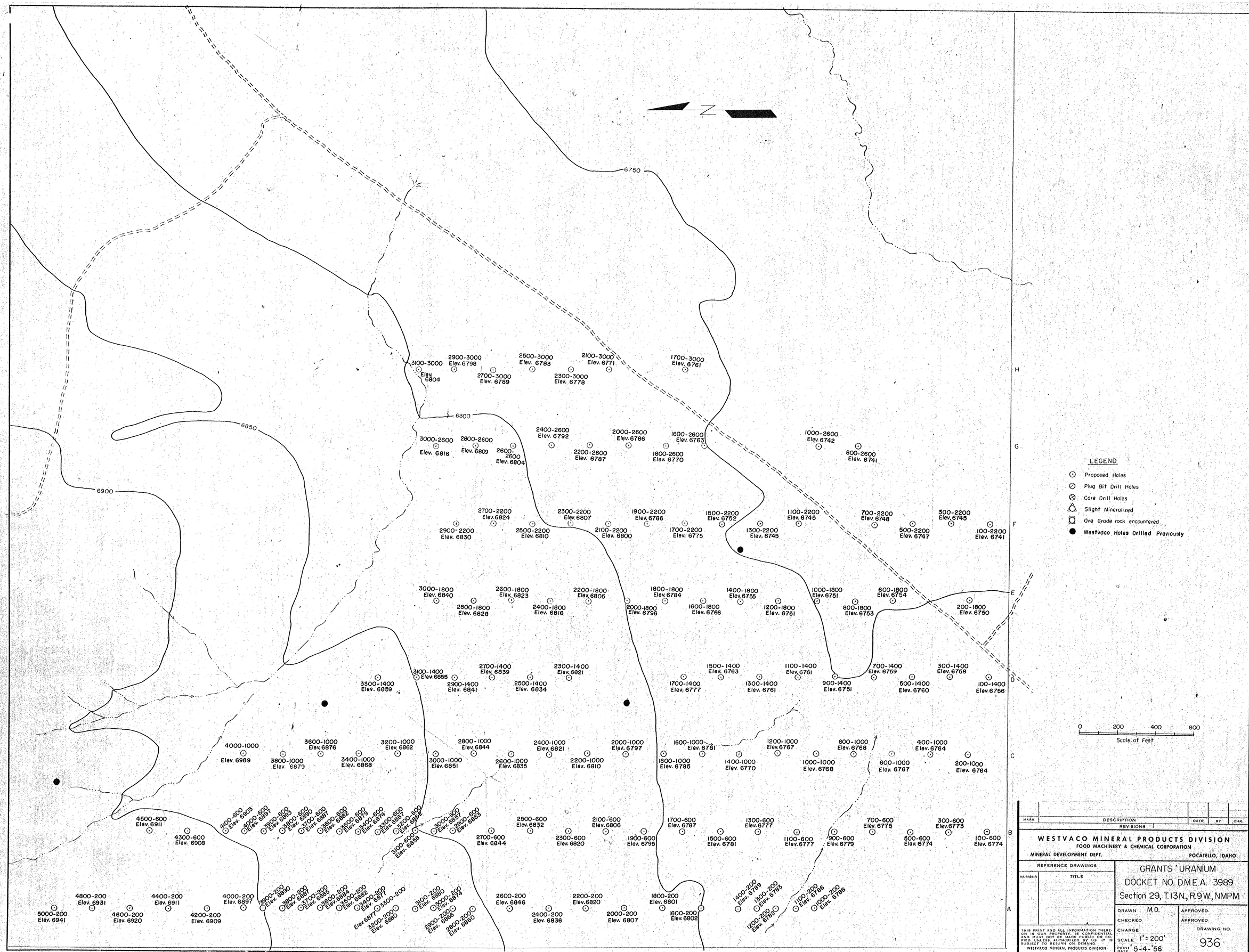
N
6750
6800
6850
6900
3100-3000 Elev. 6804
2900-3000 Elev. 6798
2700-3000 Elev. 6789
2500-3000 Elev. 6783
2300-3000 Elev. 6778
2100-3000 Elev. 6771
1700-3000 Elev. 6761
3000-2600 Elev. 6816
2800-2600 Elev. 6809
2600-2600 Elev. 6804
2400-2600 Elev. 6792
2200-2600 Elev. 6787
2000-2600 Elev. 6786
1800-2600 Elev. 6770
1600-2600 Elev. 6763
1000-2600 Elev. 6742
800-2600 Elev. 6741
2700-2200 Elev. 6824
2900-2200 Elev. 6830
2500-2200 Elev. 6810
2300-2200 Elev. 6807
2100-2200 Elev. 6800
1900-2200 Elev. 6786
1700-2200 Elev. 6775
1500-2200 Elev. 6752
1300-2200 Elev. 6745
1100-2200 Elev. 6745
700-2200 Elev. 6748
500-2200 Elev. 6747
300-2200 Elev. 6745
100-2200 Elev. 6741
3000-1800 Elev. 6840
2800-1800 Elev. 6828
2600-1800 Elev. 6823
2400-1800 Elev. 6816
2200-1800 Elev. 6805
2000-1800 Elev. 6796
1800-1800 Elev. 6784
1600-1800 Elev. 6766
1400-1800 Elev. 6755
1200-1800 Elev. 6751
1000-1800 Elev. 6751
800-1800 Elev. 6753
600-1800 Elev. 6754
200-1800 Elev. 6750
3100-1400 Elev. 6855
3300-1400 Elev. 6859
2900-1400 Elev. 6841
2700-1400 Elev. 6839
2500-1400 Elev. 6834
2300-1400 Elev. 6821
1700-1400 Elev. 6777
1500-1400 Elev. 6763
1300-1400 Elev. 6761
1100-1400 Elev. 6761
900-1400 Elev. 6751
700-1400 Elev. 6759
500-1400 Elev. 6760
300-1400 Elev. 6758
100-1400 Elev. 6756
4000-1000 Elev. 6989
3800-1000 Elev. 6879
3600-1000 Elev. 6876
3400-1000 Elev. 6868
3200-1000 Elev. 6862
3000-1000 Elev. 6851
2800-1000 Elev. 6844
2600-1000 Elev. 6835
2400-1000 Elev. 6821
2200-1000 Elev. 6810
2000-1000 Elev. 6797
1800-1000 Elev. 6785
1600-1000 Elev. 6781
1400-1000 Elev. 6770
1200-1000 Elev. 6767
1000-1000 Elev. 6768
800-1000 Elev. 6768
600-1000 Elev. 6767
400-1000 Elev. 6764
200-1000 Elev. 6764
4500-600 Elev. 6911
4300-600 Elev. 6908
4100-600 Elev. 6903
4000-600 Elev. 6897
3900-600 Elev. 6893
3800-600 Elev. 6890
3700-600 Elev. 6887
3600-600 Elev. 6882
3500-600 Elev. 6879
3400-600 Elev. 6874
3300-600 Elev. 6867
3200-600 Elev. 6862
3100-600 Elev. 6859
3000-600 Elev. 6857
2900-600 Elev. 6853
2700-600 Elev. 6844
2500-600 Elev. 6832
2300-600 Elev. 6820
2100-600 Elev. 6806
1900-600 Elev. 6795
1700-600 Elev. 6787
1500-600 Elev. 6781
1300-600 Elev. 6777
1100-600 Elev. 6777
900-600 Elev. 6779
700-600 Elev. 6775
500-600 Elev. 6774
300-600 Elev. 6773
100-600 Elev. 6774
5000-200 Elev. 6941
4800-200 Elev. 6931
4600-200 Elev. 6920
4400-200 Elev. 6911
4200-200 Elev. 6909
4000-200 Elev. 6897
3900-200 Elev. 6890
3800-200 Elev. 6887
3700-200 Elev. 6883
3600-200 Elev. 6884
3500-200 Elev. 6882
3400-200 Elev. 6877
3300-200 Elev. 6877
3200-200 Elev. 6880
3100-200 Elev. 6880
3000-200 Elev. 6874
2900-200 Elev. 6868
2800-200 Elev. 6860
2600-200 Elev. 6846
2400-200 Elev. 6836
2200-200 Elev. 6820
2000-200 Elev. 6807
1800-200 Elev. 6801
1600-200 Elev. 6802
1400-200 Elev. 6789
1300-200 Elev. 6785
1200-200 Elev. 6782
1100-200 Elev. 6786
1000-200 Elev. 6786
H
G
F
E
D
C
B
A
LEGEND
Proposed Holes
Plug Bit Drill Holes
Core Drill Holes
Slight Mineralized
Ore Grade rock encountered
Westvaco Holes Drilled Previously
0 200 400 800
Scale of Feet
MARK DESCRIPTION DATE BY CHK.
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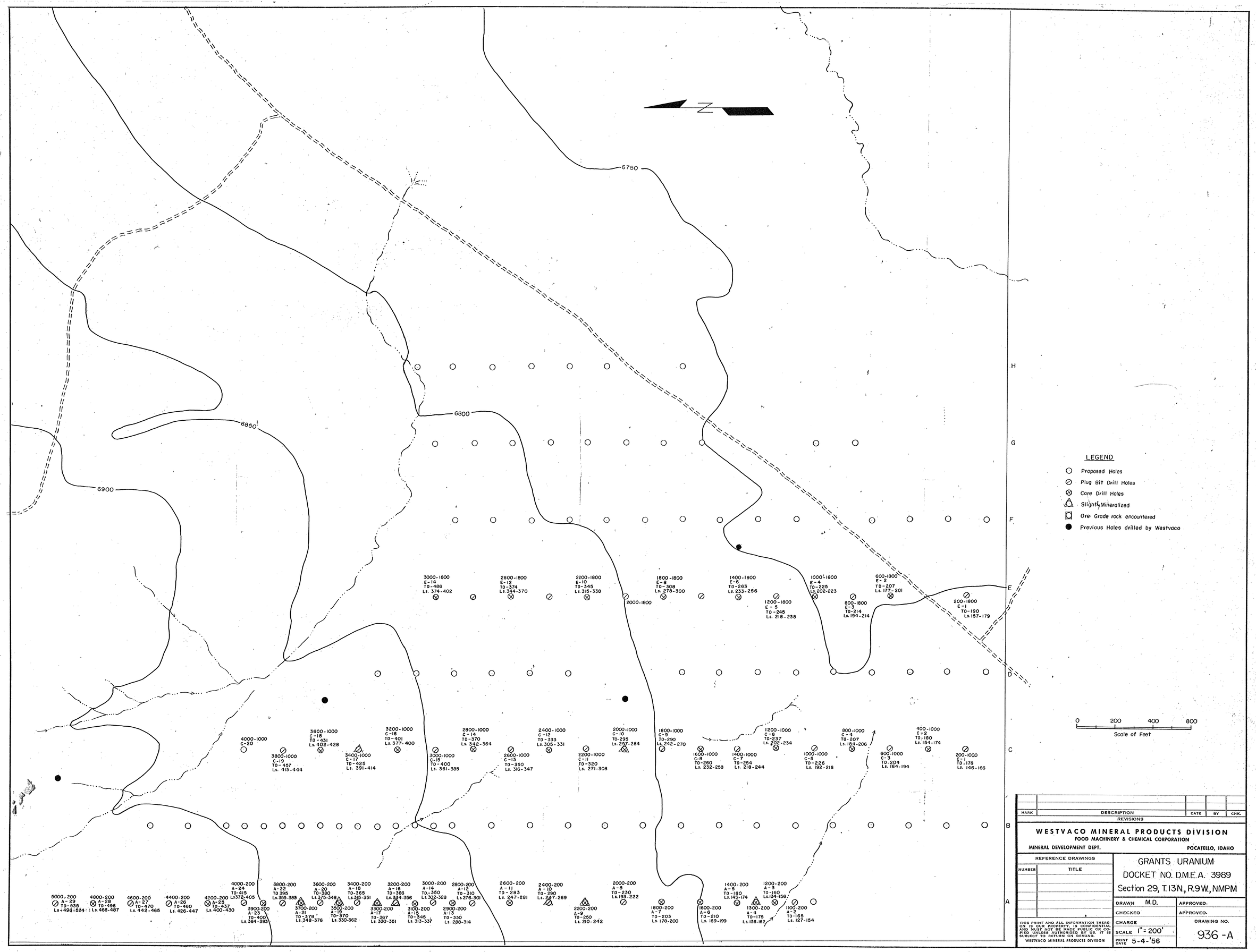

MARK	DESCRIPTION	DATE	BY	CHK.

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MINERAL DEVELOPMENT DEPT. POCATELLO, IDAHO

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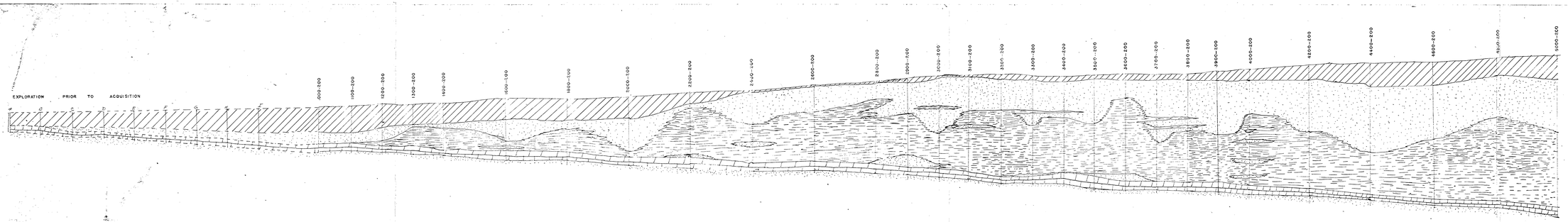

200 EAST LINE

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