

INTERVAL SHEET

Page 1 of 1

VDMR Well No:2129

Date rec'd:

Sample Interval: from 3'5" to: 168'9"

PROP: BLM A-050368

Number of samples: 61

Hole No.: T2-1A

COMP: Minerals Development Corp.

Total Depth: 168'9"

COUNTY: Giles

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
3'5 - 5.5	81'7.2" - 82'3"	1662'11 - 168'9"	-
5.5 - 10	82'3" - 86'4"	-	-
10 - 13.2	86'4" - 92'3"	-	-
13.2 - 17.8	92'3" - 96'6"	-	-
17.8 - 19.7	96'6" - 98'	-	-
19.7 - 22.8	98' - 102'3"	-	-
22.8 - 24.0	102'3" - 104'8"	-	-
24.0 - 28.0	104'8" - 106'3"	-	-
28.0 - 33.0	106'3" - 107'10.8"	-	-
33.0 - 35.8	107'10.8" - 109'1"	-	-
35.8 - 38.0	109'1" - 112'9.8"	-	-
38.0 - 41.6	112'9.8" - 114'5"	-	-
41.6 - 46.2	114'5" - 115'8"	-	-
46.2 - 52.1	115'8" - 118'7"	-	-
52'1.2" - 53'9"	118'7" - 124'	-	-
53'9" - 54'7"	124' - 126'	-	-
54'7" - 56'4.5"	126' - 131'	-	-
56'4.5" - 57'3.5"	131' - 135'2"	-	-
57'3.5" - 57'10.5"	135'2" - 135'9"	-	-
57'10.5" - 59'7.5"	135'9" - 140'5"	-	-
59'7.5" - 61' (2 spls)	140'5" - 145'	-	-
61' - 62'3"	145' - 145'11"	-	-
62'3" - 64'9"	145'11" - 147'2"	-	-
64'9" - 65'6"	147'2" - 148'4"	-	-
65'6" - 67'	148'4" - 148'6"	-	-
67' - 69'	148'6" - 150'5.5"	-	-
69' - 70'2.4"	150'5.5" - 155'7"	-	-
70'2.4" - 77'7.6" (2)	155'7" - 162'1"	-	-
77'7.6" - 80'9.6"	162'1" - 163'1"	-	-
80'9.6" - 81'7.2"	163'1" - 166'2"	-	-

INTERVAL SHEET

Page 1

of 1

VDMR Well No: 2129

Date rec'd:

PROP: BLM A-050368  
HOLE NO.: T2-1A

Sample Interval: from 3.5' to: 168'9"

PROP:

COMP: MINERALS DEVELOPMENT CORP.

Number of samples: 61

COMP:

COUNTY: GILES  
VDMR WELL NO.: W-2129

Total Depth: 168'9"

COUNTY:

FROM: TO:

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
3.5 - 5.5	81'7.2" - 82'3"	166'2" - 168'9"	-
5.5 - 10	82'3" - 86'4"	-	-
10 - 13.2	86'4" - 92'3"	-	-
13.2 - 17.8	92'3" - 96'6"	-	-
17.8 - 19.7	96'6" - 98'	-	-
19.7 - 22.8	98' - 102'3"	-	-
22.8 - 24.0	102'3" - 104'8"	-	-
24.0 - 28.0	104'8" - 106'3"	-	-
28.0 - 33.0	106'3" - 107'10.8"	-	-
33.0 - 35.8	107'10.8" - 109'1"	-	-
35.8 - 38.0	109'1" - 110'9.8"	-	-
38.0 - 41.6	110'9.8" - 114'5"	-	-
41.6 - 46.2	114'5" - 115'8"	-	-
46.2 - 52.1	115'8" - 118'7"	-	-
52'11.2" - 53'2.9"	118'7" - 124'	-	-
53'9" - 54'7"	124' - 126'	-	-
54'7" - 56'4 1/2"	126' - 131'	-	-
56'4 1/2" - 57'3 1/2"	131' - 135'2"	-	-
57'3 1/2" - 57'10 1/2"	135'2" - 135'9"	-	-
57'10 1/2" - 59'7 1/2"	135'9" - 140'5"	-	-
59'7 1/2" - 61' (2 sp1s)	140'5" - 145'	-	-
61 - 62'3"	145' - 145'11"	-	-
62'3" - 64'9"	145'11" - 147'2"	-	-
64'9" - 65'6"	147'2" - 148'4"	-	-
65'6" - 67'	148'4" - 148'6"	-	-
67' - 69'	148'6" - 150'5.5"	-	-
69' - 70'2.4"	150'5.5" - 155'7"	-	-
70'2.4" - 77'7.6" (2 sp1s)	155'7" - 162'1"	-	-
77'7.6" - 80'9.6"	162'1" - 163'1.1"	-	-
80'9.6" - 81'7.2"	163'1.1" - 166'2"	-	-

Description of Drill Cores

Hole Number: T2-1A

Elevation: 3,550

Date: August 31, 1961, Thursday

<u>Depth in feet</u>		<u>Description</u>
<u>From</u>	<u>To</u>	
0	3.5	Overburden - loose weathered white sandstone and soil.
3.5	5.5	Sandstone, white; slightly friable.
5.5	10	Sandstone, white to gray white, medium to coarse grained, slightly fractured.
10	13.2	Sandstone, white to gray, fine to medium grained, quartzitic.
13.2	17.8	Sandstone, white to gray white, quartzitic, contains 3" redish brown to gray clay seam. The lower 1 1/2' is fractured and iron stained.
17.8	22.8	Sandstone, gray to grayish black, medium grained, slightly granular.
22.8	23.0	Sandstone, gray to grayish white, medium grained.
23.0	23.4	Clay, gray to grayish maroon. Encountered extreme bit blockage.
23.4	24.0	Gray clay and shale.
24.0	27.7	Sandstone, pale yellowish-brown, fine grained extremely friable, crumbly. Incl.(core loss .9').
27.7	28	Sandstone, grayish to pale brown, fine grained, crumbly.
28'		Total Footage Drilled for the Day.

## Description of Drill Cores

T2-1A  
PAGE 2

Hole Number: T2-1A

Elevation: 3,550

Date: September 1, 1961, Friday

Depth in feet		Description
From	To	
28	33	Sandstone and interbedded clay. Sandstone pale brown, fine to medium grained, friable. Clay gray.
33	35.8	Shale, sandy and gray.
35.8	38	Shale, clayey gray. Ostracod zone at 37', <u>Leperdita alta</u> .
38	40	Shale, gray, sandy slightly congl.
40	41.6	Sandstone, gray fine grained.
41.6	43.6	Sandstone, fine to medium grained, greenish gray. Incl. 4" of brown sandstone.
43.6	46.2	Appeared to be 2' greenish gray shale overlying 8" of maroon shale. No core recovery.
-Clinton - Keefer Contact.-		
46.2	46.8	Sandstone, maroon, medium to coarse grained ferruginous.
46.8	48'5 3/4"	Sandstone, maroon, fine to medium grained, ferruginous.
48'6 1/2"	52'1.2"	Sandstone, maroon, medium to coarse grained, ferruginous. Basal foot contains granule sized pebbles. Thin clay intercalations along bedding planes in lower 3'.
52'1.2"	53'9"	Sandstone, maroon, medium to coarse grained. Some scattered quartz granules and abundant greenish gray shale intercalations along bedding planes.
53'9"	54'7"	Shale, greenish gray clayey.
54'7"	55'4 1/2"	Sandstone, maroon coarse grained abundant greenish gray clay shale intercalations on bedding planes. 1/2" thick zone of granular gray shale at 54'11 1/2".
55'4 1/2"	56'4 1/2"	Sandstone, maroon medium to coarse grained. Numerous quartz granules and maroon shale intercalations along bedding planes.

Description of Drill Cores

Hole Number: T2-1A

Elevation: 3,550

Date: September 1, 1961, Friday

Depth in feet

Description

From

To

56'4 1/2" 57'3 1/2"

Sandstone, maroon fine to medium grained, numerous quartz granules, marked absence of clay and shale parings.

57'3 1/2" 57'10 1/2"

Sandstone, drab greenish gray, fine grained.

57'10 1/2" 59'7 1/2"

Shale, greenish gray.

59'7 1/2" 60'3 1/2"

Sandstone, maroon medium to coarse grained.

60'3 1/2" 60'8 1/2"

Sandstone, maroon fine grained.

60'8 1/2" 60'11"

Sandstone, maroon coarse grained.

60'11" 61'2"

Sandstone, maroon fine to medium grained with intercalations of greenish gray shale parallel to bedding planes.

61'2" 8"

Sandstone, maroon, coarse grained congl. large quartz grains.

61'8" 62'3"

Sandstone, maroon, fine to medium grained, numerous quartz pebbles.

62'3" 62'6"

Sandstone, maroon, fine grained; contains yellow brown shale intercalations.

62'6" 62'9"

Sandstone, maroon, fine to medium grained.

62'9" 62'11"

Sandstone, maroon; contains yellow brown shale intercalations crumbly.

62'11" 64'9"

Sandstone, maroon, fine to medium grained.

64'9" 65'6"

Sandstone, maroon, coarse grained.

37'4"

Total Footage Drilled for the Day.

## Description of Drill Cores

T2-1A  
PAGE 4Hole Number: T2-1A  
Elevation: 3,550

Date: September 4, 1961, Monday

Depth in feet		Description
From	To	
65'6"	67	Sandstone, maroon, medium to coarse grained, ferruginous, contains numerous quartz granules.
67	69	Sandstone, maroon, fine to medium grained, ferruginous, contains widely scattered quartz granules.
69	70'2.4"	Sandstone, maroon, coarse grained congl., contains abundant white quartz granules and clay galls.
70'2.4"	70'6.25"	Sandstone, maroon, fine grained, ferruginous.
70'6.25"	70'11.25"	Sandstone, maroon, fine to medium grained with maroon clay intercalations parallel to bedding planes.
70'11/25"	75'7.75"	Sandstone, maroon, medium to coarse grained numerous thin zones of quartz granules parallel to bedding planes.
75'7.57"	76'.25"	Sandstone, maroon, fine to medium grained, ferruginous.
(67)'.25"	76'.26"	Clay, maroon.
76'.26"	77'7.6"	Sandstone, maroon, fine to medium grained, contains widely scattered white quartz granules.
77'7.6"	77'8"	Shale, brown to maroon.
77'8"	77'9"	Shale, gray, contains intercalations of light gray clay parallel to bedding planes.
77'9"	77'10.5"	Sandstone, fine to medium grained, maroon, contains maroon shale intercalations.
77'10.5"	78'2.4"	Shale, grayish green with alternating zones of maroon shale.
78'2.4"	78'2.5"	Sandstone, maroon, fine to medium grained.
78'2.5"	79'5.5"	Shale, pale yellow to drab.
79'5.5"	79'6"	Shale, drab maroon with maroon shale intercalations parallel to the bedding planes.

Description of Drill Cores

Hole Number: T2-1A  
Elevation: 3,550

Date: September 4, Monday

Depth in feet		Description
From	To	
79'6"	79'10.7"	Shale, yellow with pale gray-yellow in last .5".
79'10.7"	79'10.9"	Shale, drab brown, sandy.
79'10.9"	79'10.11"	Shale, yellow.
79'10.11"	80'2.1"	Sandstone, white.
80'2.1"	80'4.1"	Sandstone, maroon, fine grained, contains maroon shale intercalations parallel to the bedding planes.
80'4.1"	80'9.6"	Shale, grayish green.
80'9.6"	81'7.2"	Sandstone, maroon, fine to coarse grained congl. numerous clay gall, and scattered granular pebbles.
81'7.2"	82'3.6"	Shale, grayish green, sandy, contains interbeds of grayish white sandstone.
82'3.6"	82'4.1"	Sandstone, maroon, fine grained, ferruginous.
82'4.1"	86'4.1"	Shale, pale greenish-gray, clayey, contains intercalations of sandy shale and gray to white sandstone parallel to bedding planes.
86'4.1"	86'5.1"	Shale, pale gray green sandy (fossil zone) incl. trilobites.
86'5.1"	94'2.1"	Shale, pale grayish green, contains intercalations and interbeds of grayish-green sandy shale and gray sandstone.
94'2.1"	94'3.6"	Fossil zone including trilobites and ostracods. Grayish green sandstone, fine to medium grained.
94'3.6"	95'6.6"	Shale, pale grayish green.
95'6.6"	96'6.6"	Core loss.
96'6.6"	100'10.6"	Shale, pale grayish green, drab; contains intercalations of sandy shale and scattered fossil layers less than 1/2" thick.
100'10.6"	101'1.6"	Zone of abundant fossils.

Description of Drill Cores

Hole Number: T2-1A  
Elevation: 3,550

Date: September 4, 1961, Monday

Depth of feet		Description
From	To	
101'1.6"	101'5"	Shale, grayish green, contains pale grayish green drab sandstone.
101'5"	101'11"	Abundant fossil zone includes trilobites.
101'11"	102'3.6"	Shale, grayish green.
102'3.6"	104'8.6"	Shale, greenish gray contains interbeds of sandstone, gray white to greenish gray, fine to medium grained; and intercalations of greenish gray sandy shale;
104'8.6"	106'3.6"	Sandstone, gray to grayish black, fine grained, contains interbeds of greenish gray sandy shale.
	39'2.7"	Total Footage Drilled for the Day.



## Description of Drill Cores

T2-1A  
PAGE 7

Hole Number: T2-1A

Elevation: 3,550

Date: September 5, 1961, Tuesday

Depth in feet		Description
From	To	
106'8.6"	106'9.6"	Shale, pale grayish green and maroon, contains grayish green sandstone and sandy shale intercalations parallel to bedding planes.
106'9.6"	106'11"	Sandstone, fine grained, grayish maroon.
106'11"	107'10.8"	Shale, pale grayish green to maroon.
107'10.8"	108'3.8"	Sandstone, maroon, coarse grained, ferruginous congl. contains large quartz granules.
108'3.8"	108'10.8"	Sandstone, maroon, fine to medium grained, contains maroon shale intercalations parallel to bedding planes.
108'10.8"	109'1"	Sandstone, pale grayish green.
109'1"	112'4"	Sandstone, maroon, fine to coarse grained; contains intercalations of maroon shale parallel to bedding planes.
112'4"	112'6.3"	Shale, maroon.
112'6.3"	112'9.8"	Sandstone, pale gray green and maroon, fine grained, shaly.
112'9.8"	113'3.8"	Sandstone, maroon, coarse grained; contains quartz granules.
113'3.8"	113'4.8"	Shale, maroon.
113'4.8"	113'5.1"	Sandstone, maroon, coarse grained.
113'5.1"	113'5.6"	Shale, maroon.
113'5.6"	113'7"	Sandstone, maroon, coarse grained.
113'7"	113'9"	Shale, maroon and green.
113'9"	115'2"	Sandstone, maroon, coarse grained, contains large quartz granules.
115'2"	115'4.75"	Shale, maroon.

## Description of Drill Cores

2,  
T2-1A  
PAGE 8

Hole Number: T2-1A

Elevation: 3,550

Date: September 5, 1961, Tuesday

Depth in feet		Description
From	To	
115'9.6"	115'11"	Sandstone, maroon coarse grained.
115'11"	115'11.5"	Shale, maroon
115'11.5"	118'4.75"	Sandstone, maroon, medium to coarse grained ferruginous, contains widely scattered maroon shale intercalations.
118'4.75"	118'7"	Shale, greenish gray.
118'7"	118'8.5"	Sandstone, pale greenish gray.
118'8.5"	119'4.5"	Sandstone, maroon, fine grained.
119'4.5"	120'4.5"	Sandstone, maroon, contains maroon shale interbeds.
120'4.5"	122'8.75"	Shale, maroon to grayish, contains interbedded maroon sandstone, fine grained.
122'8.75"	122'9"	Shale, green.
122'9"	122'9.25"	Sandstone, maroon, fine grained.
122'9.25"	123'1.25"	Shale, grayish green.
123'1.25"	123'3"	Sandstone, maroon; contains interbedded maroon shale.
123'3"	123'5.5"	Sandy shale, grayish green.
123'5.5"	123'7"	Sandstone, maroon, fine grained.
123'7"	123'9.5"	Shale, grayish green.
123'9.5"	124'3.5"	Sandstone, medium to coarse grained, maroon, contains quartz granules.
124'3.5"	124'4.25"	Shale, maroon.
124'4.25"	124'5.25"	Sandstone, maroon, coarse grained.
124'5.25"	125'6.75"	Sandstone, maroon, fine grained contains maroon shale intercalations parallel to the bedding planes.

Description of Drill Cores

Hole Number: T2-1A  
Elevation: 3,550

Date: September 5, 1961, Tuesday

Depth of feet		Description
From	To	
125'6.75"	125'8.75"	Sandstone, maroon, coarse grained.
125'8.75"	126'	Sandstone, maroon, fine grained.
126'	128'4.25"	Sandstone, maroon, fine to medium grained, contains maroon shale intercalations parallel to the bedding planes.
128'4.25"	128'4.50"	Shale, green.
128'4.50"	135'2.25"	Sandstone, maroon, fine grained; contains maroon shale intercalations parallel to the bedding planes.
135'2.25"	135'8.75"	Sandstone, maroon, coarse grained; contains quartz granules.
135'8.75"	136'2.4"	Sandstone, maroon, fine grained.
29'6.4"		Total Footage Drilled for the Day.

## Description of Drill Cores

T2-1A  
PAGE 10

Hole Number: T2-1A

Elevation: 3,550

Date: September 6, 1961, Wednesday

Depth of feet		Description
From	To	
136'2.4"	139'1.4"	Sandstone, maroon, fine grained, ferruginous relatively free of shale intercalations. Few scattered clay galls.
139'1.4"	139'3.4"	Sandstone, maroon, fine grained, contains abundant maroon shale intercalations parallel to the bedding planes and two thin green shale seams.
139'3.4"	140'5.4"	Sandstone, maroon, medium to coarse grained.
140'5.4"	145'4.15"	Shale, pale gray green; contains grayish green sandstone interbeds.
145'4.15"	145'6"	Sandstone, pale grayish green, conglomerate; contains rounded quartz pebbles 2mm in diameter and black limestone pebbles.
145'6"	145'11"	Sandstone, pale grayish green conglomerate contains rounded quartz pebbles 2mm in diameter and black limestone pebbles.
145'11"	147'2"	Shale, grayish green.
147'2"	148'4"	Sandstone, gray, fine grained.
148'4"	148'6"	Sandstone, gray congl. coarse grained contains black limestone pebbles up to 1/4" in diameter.
148'6"	148'10"	Sandstone, gray, fine grained.
148'10"	150'5.5"	Sandstone, brown and gray, fine grained; contains intercalations and interbeds of gray shale. Core shows plastic deformation.
150'5.5"	155'8.4"	Sandstone, pale grayish green to olive brown, fine grained, contains scattered pale brown sandstone interbeds in upper 2'.
155'8.4"	159'7.65"	Sandstone, pale grayish green to olive drab, fine grained, contains widely scattered greenish gray shale intercalations.
159'7.65"	159'11"	Shale, pale grayish green; contains maroon, fine grained sandstone in thin intercalations.
159'11"	161'2"	Sandstone, pale grayish green, fine grained.

Description of Drill Cores

Hole Number: T2-1A  
Elevation: 3,550

Date: September 6, 1961, Wednesday

Depth in feet		Description
From	To	
161'2"	162'1"	Sandstone, pale grayish green, fine grained; contains scattered intercalations of sandstone, maroon, fine grained.
162'1"	163'1"	Sandstone, maroon, fine grained, shaly, contains maroon shale intercalations.
163'1"	162'2"	Sandstone, fine to coarse grained, grayish green contains greenish gray shale intercalations. This includes .55' core gain.
166'2"	167'	Quartzite, gray, fine grained.
30'9.6"		Total Footage Drilled for the Day.

Description of Drill Cores

Hole Number: T2-1A  
Elevation: 3,550

Date: September 7, 1961, Thursday

Depth in feet		Description
From	To	
167'	168'6"	Quartzite, grayish white, fine grained, contains black and brown shale intercalations.
1'8"		Total Footage for Day.