

INTERVAL SHEET

Page 1 of 1

VDMR Well No: 2130

Date rec'd:

Sample Interval: from 31 to: 181'11"

PROP: BLM A-050368

Number of samples: 68

Hole No.: T2-2A

COMP: Minerals Development Corp.

Total Depth: 181'11"

COUNTY: Giles

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
3' -8'10"	85'8" - 86'8"	157'6" - 158'2"	-
8'10" -12'5"	86'8" - 89'5"	158'2" - 165'6"	-
12'5" -15'2"	89'5" - 92'9"	165'6" - 167'3"	-
15'2" -16'10"	92'9" - 96'9"	167'3" - 169'5"	-
16'10" -17'2"	96'9" - 98'5"	169'5" - 175'5"	-
17'2" - 19'6"	98'5" - 99'2"	175'5" - 179'1"	-
19'6" - 21'10"	99'2" - 101'6"	179'1" - 181'4"	-
21'10" - 22'5"	101'6" - 103'5"	181'4" - 181'11"	-
22'5" - 24'5"	103'5" - 104'3"	-	-
24'5" - 25'5"	104'3" - 106'	-	-
25'5" - 29'	106' - 107'2"	-	-
29' - 37'	107'2" - 107'4.5"	-	-
37' - 37'	107'4.5" - 111'6"	-	-
37' - 39'	111'6" - 117'8.5"	-	-
39' - 40'2"	117'8.5" - 120'8.5"	-	-
40'2" - 42'5"	120'8.5" - 126'5"	-	-
42'5" - 47'2"	126'5" - 129'1"	-	-
47'2" - 48'7"	129'1" - 130'1"	-	-
48'7" - 52'6"	130'1" - 132'5"	-	-
52'6" - 57'6"	132'5" - 133'2"	-	-
57'6" - 68'11"	133'2" - 134'	-	-
68'11" - 69'5"	134' - 137'3"	-	-
69'5" - 71'2"	137'3" - 139'11"	-	-
71'2" - 73'9"	139'11" - 141'11"	-	-
73'9" - 74'3"	141'11" - 145'2"	-	-
74'3" - 75'2"	145'2" - 148'4"	-	-
75'2" - 75'11"	148'4" - 152'	-	-
75'11" - 82'	152' - 153'11"	-	-
82' - 84'6"	153'11" - 155'	-	-
84'6" - 85'8"	155' - 157'6"	-	-

INTERVAL SHEET

Page 1 of 1

VDMR Well No: 2130

Date rec'd:

Sample Interval: from 3' to 181'11"

PROP: BLM A-050368  
Hole No. : T2-2A

Number of samples: 68

COMP: Minerals Development Corp

Total Depth: 181'11"

COUNTY: Miles

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
3' - 8'10"	85'8" - 86'8"	157'6" - 158'2"	-
8'10" - 12'5"	86'8" - 89'5"	158'2" - 165'6"	-
12'5" - 15'2"	89'5" - 92'9"	165'6" - 167'3"	-
15'2" - 16'10"	92'9" - 96'9"	167'3" - 169'5"	-
16'10" - 17'2"	96'9" - 98'5"	169'5" - 175'5"	-
17'2" - 19'6"	98'5" - 99'2"	175'5" - 179'11"	-
19'6" - 21'10"	99'2" - 101'6"	179'11" - 181'4"	-
21'10" - 22'5"	101'6" - 103'5"	181'4" - 181'11"	-
22'5" - 24'5"	103'5" - 104'3"	-	-
24'5" - 25'5"	104'3" - 106'	-	-
25'5" - 29'	106' - 107'2"	-	-
29' - 37'1"	107'2" - 107'4.5"	-	-
37'1" - 37'11"	107'4.5" - 111'6"	-	-
37'11" - 39'	111'6" - 117'8.5"	-	-
39' - 40'2"	117'8.5" - 120'8.5"	-	-
40'2" - 42'5"	120'8.5" - 126'5"	-	-
42'5" - 47'2"	126'5" - 129'11"	-	-
47'2" - 48'7"	129'11" - 130'11"	-	-
48'7" - 52'6"	130'11" - 132'5"	-	-
52'6" - 57'6"	132'5" - 133'2"	-	-
57'6" - 68'11"	133'2" - 134'	-	-
68'11" - 69'5"	134' - 137'3"	-	-
69'5" - 71'2"	137'3" - 139'11"	-	-
71'2" - 73'9"	139'11" - 141'11"	-	-
73'9" - 74'3"	141'11" - 145'2"	-	-
74'3" - 75'2"	145'2" - 148'4"	-	-
75'2" - 75'11"	148'4" - 152'	-	-
75'11" - 82'	152' - 153'11"	-	-
82' - 84'6"	153'11" - 155'	-	-
84'6" - 85'8"	155' - 157'6"	-	-

Description of Drill Cores

Hole Number: T2-2A  
Elevation: 3,450

Date: September 8, 1961, Friday

Depth in feet		Description
From	To	
0	3	Overburden, Keefer sandstone.
3	8.8	Shale and clay, poor core recovery.
-Clinton Sandstone-		
8.8	12.4	Sandstone, maroon, medium to coarse grained. Clinton
12.4	15.15	Sandstone, maroon, fine to medium grained.
15.15	15.20	Shale, grayish green.
15.20	16.80	Sandstone, maroon, medium to coarse grained. Contains quartz granules and scattered maroon clay galls.
16.80	17.15	Shale, grayish green to olive drab.
17.15	18.4	Sandstone, maroon, coarse grained.
	18.4	Total Footage Drilled for the Day.

## Description of Drill Cores

T 2-2A  
PAGE 2

Hole Number: T2-2A

Elevation: 3,450

Date: September 11, 1961, Monday

Depth in feet		Description
From	To	
18.4	19.5	Sandstone, maroon, medium to coarse grained; contains maroon shale parting.
19.5	21.80	Shale, gray and maroon, soft clayey; contains two zones of maroon sandstone, each 0.2' thick.
21'9.6"	22'5"	Sandstone, maroon, fine to coarse grained; contains clay galls and maroon shale parting. Iron content nil.
22'6"	24'5"	Sandstone, maroon, medium to coarse grained, ferruginous, conglomeratic, marked absence of shale partings.
24'5"	25'5.5"	Sandstone, maroon, medium to coarse grained, ferruginous, vuggy; contains large quartz granules.
25'5.5"	25'5.6"	Shale, green.
25'5.6"	26'3"	Sandstone, maroon, fine to medium grained.
26'3"	26'4"	Shale, maroon and grayish green.
25'4"	26'6"	Sandstone, maroon, fine to medium grained.
26'6"	26'7"	Shale, grayish green.
26'7"	27'5"	Sandstone, maroon, fine to medium grained; contains abundant maroon shale partings.
27'5"	29'	Sandstone, maroon, fine to medium grained, ferruginous.
29'	33'3"	Sandstone, maroon, fine grained, ferruginous, contains clay galls; fractured, fractures filled with brown mud, fractures occur in upper and lower 1 foot of interval.
33'3"	35'3"	Sandstone, maroon, contains maroon shale partings, fine grained.

## Description of Drill Cores

T2-2A  
PAGE 3

Hole Number: T2-2A

Elevation: 3,450

Date: September 11, 1961, Monday

Depth in feet		Description
From	To	
35'3"	35'5"	Shale, maroon and gray.
35'5"	37'1"	Sandstone, maroon, fine to medium grained, contains maroon shale partings.
37'1"	37'11"	Sandstone, maroon, medium to coarse grained, ferruginous, vuggy, conglomeratic.
37'11"	39'	Sandstone, maroon, fine to medium grained, contains maroon shale partings and a 1" intercalation of gray shale.
39'	39'8"	Shale, gray to pale olive drab.
39'8"	40'	Sandstone, maroon, fine grained ferruginous.
40'	40'1"	Shale, gray.
40'1"	40'2"	Sandstone, maroon, fine to medium grained.
40'2"	41'2"	Shale, pale grayish green, glauconitic.
41'2"	42'4.5"	Shale, pale rust brown to olive drab.
42'4.5"	42'6"	Sandstone, maroon, coarse grained conglomeratic; contains brown clay galls.
42'6"	45'	Sandstone, maroon, fine grained, ferruginous, contains clay galls. Ostracod zone at 42'9".
45'	47'1.5"	Sandstone, maroon, fine grained, badly fractured, contains maroon shale intercalations.
47'1.5"	47'3.5"	Shale, brown, fractured.
47'3.5"	47'4.5"	Shale, maroon.
47'4.5"	47'6"	Shale, gray.

Description of Drill Cores

Hole Number: T2-2A

Elevation: 3,450

Date: September 11, 1961, Monday

Depth in feet		Description
From	To	
47'6"	47'7"	Shale, rust brown.
48'7"	52'6"	Shale, pale grayish green glauconitic.
52'6"	57'6"	Shale, pale grayish green, glauconitic, contains intercalations of greenish gray fine grained sandstone. Fossil zones at 53'6" and, 56'4".
41'2"		Total Footage Drilled for the Day.

## Description of Drill Cores

Hole Number: T2-2A  
Elevation: 3,450

Date: September 12, 1961, Tuesday

Depth in feet		Description
From	To	
57'6"	57'8"	Shale, gray, sandy, fossiliferous; contains trilobites.
57'8"	67'8"	Shale, pale grayish green, unctuous; contains pale grayish green fine grained sandstone intercalations.
67'8"	68'11"	Shale, gray, contains intercalations of pale gray sandstone; fossiliferous, includes trilobites and brachiopods.
68'11"	69'5"	Shale, rust brown, sandy, fractured; contains several gray shale partings.
69'5"	73'9"	Shale, gray, unctuous.
73'9"	74'3"	Sandstone, maroon, fine grained, contains rust brown shale partings in lower 2".
74'3"	74'11"	Shale, gray, contains rust brown partings.
74'11"	75'2"	Shale, maroon.
75'2"	75'11"	Sandstone, maroon, coarse grained, conglomeratic, ferruginous.
75'11"	76'	Shale, gray and maroon.
76'	76'4"	Sandstone, maroon, coarse grained, conglomeratic, ferruginous.
76'4"	81'2"	Sandstone, maroon, fine to medium grained, highly ferruginous, contains widely scattered maroon shale partings and clay galls.
81'2"	82'	Sandstone, maroon, fine grained ferruginous, contains maroon shale partings and olive drab shale partings and olive drab shale intercalations.
82'	84'	Shale, maroon and olive drab, contains interbeds of fine grained, maroon sandstone.
84'	84'2"	Sandstone, maroon, coarse grained, ferruginous.
84'2"	84'6"	Shale, maroon.

## Description of Drill Cores

Hole Number: T2-1A

Elevation: 3,450

Date: September 12, 1961, Tuesday

Depth in feet		Description
From	To	
84'6"	85'8"	Sandstone, maroon, coarse grained, ferruginous.
85'8"	86'8"	Sandstone, maroon, fine to medium grained, ferruginous.
86'8"		Green shale parting.
86'8"	88'6"	Sandstone, maroon, fine to medium grained, highly ferruginous.
88'6"		Green shale parting.
88'6"	88'7"	Sandstone, maroon, fine to medium grained.
88'7"		Green shale parting.
88'7"	89'5"	Sandstone, maroon, fine to medium grained, ferruginous.
89'5"	90'1.5"	Sandstone, maroon, coarse grained ferruginous, conglomeratic; contains quartz granules.
90'1.5"	92'9"	Sandstone, maroon, fine grained, contains abundant maroon shale intercalations.
92'9"	96'9"	Shale, maroon and grayish green, contains interbeds of maroon, fine grained sandstone, containing maroon shale partings.
96'9"	98'4.5"	Sandstone, maroon, coarse grained, conglomeratic, ferruginous; contains quartz granules.
98'4.5"	98'9"	Shale, maroon and gray.
98'9"	99'2"	Sandstone, maroon, fine grained, contains maroon shale intercalations.
99'2"	101'6"	Shale, pale grayish green, glauconitic (incl. 1'3" core loss).
44'		Total Footage Drilled for the Day.



## Description of Drill Cores

Hole Number: T2-2A

Elevation: 3,450

Date: September 13, 1961, Wednesday

<u>Depth in feet</u>		<u>Description</u>
<u>From</u>	<u>To</u>	
101'6"	103'5"	Shale, maroon and green.
103'5"	103'8"	Sandstone, maroon, fine grained.
103'8"	104'3"	Sandstone, pale grayish green, fine grained.
104'3"	105'8"	Shale, maroon and green.
105'8"	106'	Sandstone, maroon, fine to medium grained, slightly ferruginous.
106'	107'2"	Shale, grayish green (includes 8" core loss)
107'2"	107'4.5"	Sandstone, gray and brown, fractured.
107'4.5"	111'6"	Sandstone, gray to grayish black, slight maroon hue, fine grained.
111'6"	116'3"	Shale, gray, unctuous, contains gray fine grained sandstone interbeds.
116'3"	117'8.5"	Shale, dark grayish green, contains sandstone interbeds.
117'8.5"	119'7.5"	Sandstone, pale gray to grayish green, contains irregular brown silt and sand intercalations and green shale partings.
119'7.5"	126'5"	Sandstone, gray to grayish green, contains irregular green shale partings and clay galls.
126'5"	129'1"	Sandstone, gray, fine grained, contains sporadic maroon sandstone partings.
129'1"	130'1"	Sandstone, maroon, fine grained shaly; contains green and maroon shale partings.
130'1"	130'11"	Shale, maroon, sandy.
130'11"	132'5"	Shale, gray, sandy.
132'5"	133'2"	Sandstone, grayish green, fine to medium grained, contains green shale partings.
133'2"	134'	Shale, pale green.

Description of Drill Cores

Hole Number: T2-2A  
Elevation: 3,450

Date: September 13, 1961, Wednesday

<u>Depth in feet</u>		<u>Description</u>
<u>From</u>	<u>To</u>	
134'	137'3"	Sandstone, pale grayish white, fine grained, quartzitic, contains grayish black shale partings.
137'3"	138'4"	Shale, grayish black, sandy.
138'4"	139'7"	Sandstone, gray, fine grained, quartzitic, contains black shale partings.
139'7"	139'11"	Shale, black.
139'11"	141'11"	Shale, gray, sandy.
-Shut down for day at 140'7"		
39'1"		Total Footage Drilled for the Day.

## Description of Drill Cores

Hole Number: T2-2A  
Elevation: 3,450

Date: September 14, 1961, Thursday

Depth in feet		Description
From	To	
141'11"	143'1"	Sandstone, pale gray, fine grained, contains gray shale parting.
143'1"	143'7"	Sandstone, gray, fine grained; contains large ellipsoidal clay pellets and balls.
143'7"	144'8"	Sandstone, gray to pale greenish gray, contains sporadic black to gray shale partings.
144'8"	146'5"	Sandstone, grayish maroon, fine grained.
146'5"	148'4"	Sandstone, maroon, fine grained, slightly ferruginous.
148'4"	152'	Shale, grayish green, unctuous.
152'	152'8"	Sandstone, maroon, fine grained.
152'8"	153'11"	Sandstone, gray, fine grained; contains gray shale intercalations.
153'11"	154'3"	Shale, gray, sandy.
154'3"	154'11"	Sandstone, gray, coarse grained, conglomerate; contains abundant black and gray clay pellets, quartz granules and fossils.
14'9"		Total Footage Drilled for the Day.

Description of Drill Cores

Hole Number: T2-2A

Elevation: 3,450

Date: September 15, 1961, Friday

Depth in feet		Description
From	To	
155'4"	157'6"	Shale, grayish black, contains gray fine grained sandstone intercalations parallel to bedding planes.
157'6"	158'2"	Sandstone, pale grayish white, fine grained, quartzitic.
158'2"	165'6"	Shale, grayish black, contains gray fine grained sandstone intercalations.
165'6"	167'3"	Shale, grayish black.
167'3"	169'5"	Sandstone, gray to grayish green, fine grained.
169'5"	170'1.5"	Sandstone, gray, shaly.
170'1.5"	175'5"	Shale, gray to black, sandy; contains gray sandstone intercalations.
175'5"	175'8"	Conglomerate, gray, fine grained; contains gray sandstone and quartz pebbles set in a gray sandstone and shale matrix.
175'8"	178'9"	Sandstone, gray, fine grained, contains black and gray shale intercalations; core mottled with irregular brown sandstone intercalations.
178'9"	179'1"	Sandstone, grayish black, fine grained, vuggy; contains irregular intercalations of gray sandstone.
179'	181'4"	Sandstone, gray, fine grained, quartzitic.
181'4"	181'6"	Shale, gray.
181'6"	181'11"	Sandstone, grayish white, fine grained, quartzitic. Hard and durable.
26'7"		Total Footage Drilled for the Day.