EXCOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MERENIE NO. 1 Elevation K.B.: 2565 G.L.: 2554 Date: 29th May, 1964
Test No.: 1 Interval: 2578-2703 Operator: Exoil

Tester, Size & Type: 4½ Johnston Co Packer, Size & Type: 7½ Open hole
Anchor, Length & O.D.: 124' 4½" Drill Collar Footage above Tester: 97'

Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0032

Pressure
Type: T1 Position: 1 above packer
From: 2578 To: 2600
& one at bottom Anchor
of tail pipe Perforations
From: To:

Disk Valve Position: 100' above tool Water Cushion: Mud Wt.: 10.8 Vis.: 57
Chokes - Top: B.H.: - Drill pipe, size & Type: 4½ x 16.6
Full-Hole, Size & Depth: 8½" 2703' Rat Hole, Size & Depth: -
Mud Level, Before Valve Opened: Surface After Valve Opened: Surface

Time Record: Started In: 6:30 a.m. Set Packer: 7:50 a.m. Valve Opened: 7:57 a.m.
Disk Broken: 8:30 a.m. Valve Shut: 10:30 a.m. Packed Packer: 11:30 a.m. Out of Hole: 1:30 p.m.
Nature of Blow: Gas to surface in 3 minutes. Good initial blow. Steady flow
at first gradually increasing.


T.r.s. 8.45 (steady) 9.20 9.30 9.40 9.50 10.20 10.25
Reading: 2.2" water 2.8" 4.0" 5.0" 3.4" 12.4" 8.4"
Rate of Flow: 209 MCFGPD 250 295 310 270* 520 425
Oil or Water Flow: NIL *flowing small amount of mud

Fluid Recovered: 210 feet slightly gas cut drilling mud

Chart Readings: Time elapsed, mins.: ISI 30mins Flowing 1 hour FSI 1 hour
res: THP 1530 ISIP 1475 IPP 205 FPP 250 FSIP 1332 FHF 1490

Maximum Temperature: Less than 200°F

Samples: Two bottles of gas 250 PSI 2.1-gallon jars of mud

Remarks: Shut in at surface 5 minutes 9:25 a.m. to 9:30 a.m. Shut in at surface 30 minutes 9:50 a.m. to 10:20 a.m. During half hour shut-in (surface) drill head pressure 250 PSI blew down to 80 PSI. Shut in at surface to try and blow mud out of hole. Shut in after half hour surface shutin decreasing rapidly. Maximum stabilised flow rate 310 MCFGPD. Clock on top stopped. Good chart on lower bomb. Shut-in pressure after half hour surface 565 blown down to 290 (readings from chart)

Geologist/Engineer D.D. Benbow
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MERFENIE No. 1 Elevation K.B.: 2565' G.L.: 3254' Date: 5th June, '64.

Test No.: 2 Interval: 3079'-3155' Operator: Exoil

Tester, Size & Type: 4¼" Johnston C O Packer, Size & Type: 7¼" Open Hole

Anchor, Length & O.D.: 76' 4½" Drill Collar Footage above Tester: 178'

Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0032

Pressure

Type: T1
Position: Bottom Tail Pipe

Anchor

T1

Above Packer Perforations

From: 3079 To: 3101

Disk Valve Position: 2866'

Water Cushion: Nil

Mud Wt.: 13.34 Vis.: 66

Chokes - Top: Nil B.H.: Nil

Drill pipe, size & Type: 4¼" x 16.6

Full Hole, Size & Depth: 8½" 3155'

Rate of Flow: 393 mcfd

Oil or Water Flow: Nil

Fluid Recovered: 200' very slightly gas cut drilling mud

Chart Readings: Time elapsed, mins.: IST 30 mins Flowing 1 hour FSI 1 hour

Maximum Temperature: < 200°F

Samples: 2 gas bombs (170 p.s.i.), 2 Jars Mud.

Remarks: Shut in at surface 3:07 p.m. to 3:40 p.m. Pressure built up at well head to 180 p.s.i. Flow after Surface Shut in too great (in excess of ½ mcfd) to measure with water. Flow died down rapidly to 260 mcfd (3:50 p.m.). Final Shut in at 3:54 p.m. Stabilized open flow 260 mcfd. Both charts are identical, Pressures on top chart slightly less than those on bottom. Pressures (above) taken from bottom chart. Shut in Pressure after 33 minutes surface shut in 410 (taken from chart).

Geologist/Engineer D. D. Benbow
**EXOIL NO LIABILITY**

**DRILL STEM TEST REPORT**

Well: EAST MEROENIE NO. 1  
Elevation K.B.: 2565'  
G.L.: 2554'  
Date: 12th June, '64

Test No.: 3  
Interval: 3163' - 3238'  
Operator: Exoil

Tester, Size & Type: 4 1/2" Johnston Co.  
Packer, Size & Type: 7 1/2" hole

Anchor, Length & O.D.: 75'  
Drill Collar Footage above Tester: 622'

Capacity (bbl./foot) - Drill Pipe: 0.0142  
Drill Collars: 0.032

Pressure

- Type: T  
- Position: Bottom Tail Pipe

- Anchor Bombs

- Above packer Perforations

Disk Valve Position: 3030'  
Water Cushion:  
Mud Wt.: 13.2  
Vis: 66

Chokes - Top: Nil  
B.H.: Nil  
Drill pipe, size & Type:  

Pull Hole, Size & Depth: 2 1/2" - 3238'  
Rat Hole, Size & Depth: Nil

Man Level, Before Valve Opened: Surface  
After Valve Opened: Surface

Time Record: Started In: 11:00 a.m.  
Set Packer: 12:32 p.m.  
Valve Opened: 12:40 p.m.

Disk Broken: 1:10 p.m.  
Valve Shut: 2:10 p.m.  
Pulled Packer: 3:10 p.m.  
Out of Hole: 5:30 p.m.

Nature of Blow: Good Initial blow after 15 minutes, rapidly decreasing.

very faint for remainder of test.

Gas Flow Measuring Method: No gas to surface

Time:

Rate of Flow:

Oil or Water Flow:

Fluid Recovered: 565 feet slightly gas cut mud

Chart Readings:  
Time elapsed, min.: ISI 4 / hour Flowing 1 hour  FSI 1 hour

- Temperature:  
- Minimum: IPH 2180  ISIP 370  IFP 90  FPP 90  FSIP Rec'd 2195

- Maximum Temperature: Less than 200°F

Samples: 2 Jars mud

Remarks: Reset packer 1:30 p.m., tool filled with mud. Both charts identical.

Final shut in pressure not recorded. Pressures are from bottom chart.

Geologist/Engineer: D. D. Renbow.
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MERFENTE NO. 1  Elevation K.B. 2565'  G.L. 2554'  Date: 18th June, '66
Test No.: 4  Interval: 3426'-3476'  Operator: Exoil

Tester, Size & Type: 4 2/3 Johnston C.O.  Packer, Size & Type: 7 3/8" Open Hole
Anchor, Length & O.D.: 50' x 6'  Drill Collar Footage above Tester: 94'

Capacity (bbl./foot) - Drill Pipe: 0.0142  Drill Collars: 0.0032

Pressure

Type: T1  Position: Bottom Tail Pipe
Anchor
Bombs

From: 3426' To: 3436'

Disk Valve Position: 3237'
Water Cushion: Nil
Mud Wt.: 13.1 Vis: 67
Chokes - Top: Nil  B.H.: Nil  Drill pipe, size & Type: 4 2/3" x 16.6'

Full Hole, Size & Depth: 8 1/2" 3476'  Rat Hole, Size & Depth: --

Misc. Level, Before Valve Opened: Surface  After Valve Opened: Surface

Time Record: Started In: 10:20 a.m.  Set Packer: 12:01 p.m.  Valve Opened: 12:06 p.m.
Disk Broken: 12:35 p.m.  Valve Shut: 1:36 p.m.  Pulled Packer: 2:06 p.m.  Out of Hole: 4:00 p.m.
Nature of Blow: Air to surface 7 min. Good initial blow, decreasing rapidly.

Paint but steady air blow for remainder of Flow Period.

Gas Flow Measuring Method: No gas to surface

Reading:
Rate of Flow:

Oil or Water Flow: Nil

Fluid Recovered: 60' Drilling Mud

Chart Readings: Time elapsed, min.: ISI 1/2 hour  Flowing 1 hour FSI 1/2 hour

\begin{itemize}
  \item WP 2355
  \item ISIP 160
  \item IPP 95
  \item FPP 95
  \item FSIP 105
  \item FHP 2355
\end{itemize}

Maximum Temperature: < 200°F

Samples: 2 Jars Mud

Remarks: Test mechanically successful; Both Charts identical, Pressures on Bottom chart slightly higher than top. Pressures (above) are from bottom chart.

Geologist/Observer D. D. Banbow
Drill Stem Test Report

Well: EAST MERENIE NO. 1  
Elevation K.B.: 2565'  
G.L.: 2554'  
Date: 22nd June, '64

Test No.: 5  
Interval: 3669'-3776'  
Operator: EXCOIL

Tester, Size & Type: 4 1/2" Johnston C.O.  
Packer, Size & Type: 7 1/2" Open Hole

Anchor, Length & O.D.: 107' 6 1/2"  
Drill Collar Footage above Tester: 210'

Capacity (bbl./foot) - Drill Pipe: 0.0142  
Drill Collars: 0.0032

Pressure

- Type: T1  
- Position: Bottom Tail Pipe  
- From: 3669'  
- To: 3679'

Bombs

- Type: T1  
- Above packer

Disk Valve Position: 3656'  
Water Cushion: Nil  
Mud Wt.: 12.9  
Vis.: 52

Chokes - Top: Nil  
B.H.: Nil  
Drill pipe, size & Type: 4 1/2" x 16.6

Fur Hole, Size & Depth: 3726'  
Rat Hole, Size & Depth: 8 1/2"

Mud Level, Before Valve Opened: Surface

After Valve Opened: Surface

Time Record:
- Started In: 1:30 p.m.  
- Set Packer: 3:01 p.m.  
- Valve Opened: 3:07 p.m.

Disk Broken: 3:37 p.m.  
 Valve Shut: See below  
Pulled Packer: 6:20 pm  
Out of Hole: 8:30 pm

Nature of Blow: Gas to surface in 2 minutes, strong initial blow, blowing gas and mud for 20 minutes; Gas blow steady after clearing mud.

Gas Flow Measuring Method: Pressure gauge on 4" Critical Flow Prover (1 1/2" Choke)

Unable to measure till mud cleared out. Steady Flow 4:00 p.m. to 5:20 p.m.

Reading: 4:00 pm 80 p.s.i. 85°F; 4:10 pm to 5:20 pm. 80 p.s.i. 74°F

Rate of Flow: 4554 mcfd (4.5 Mcmcf/d); 4594 mcfd (4.6 Mcmcf/d)

Oil or Water Flow: Nil

Fluid Recovered: 5 gallons condensate and Drilling Mud (Mainly mud)

Chart Readings:
- Time elapsed, mina.: ISI 1 hour  
- Flowing 1hr. 40mins (Surface) 1 hour

Maximum Temperature: <200°F

Samples: One 500 cubic inch Pressure Bomb (180 p.s.i.) Two 100 cubic inch Pressure Bomb (180 p.s.i.); 4 Jars Fluid

Flowing Pressure at Well Head 525 p.s.i.  
Surface Shut in 5:20 p.m. to 6:05 p.m. (Equivalent of Final Shut In). Bled off gas 5:05 p.m. to 6:20 p.m.  
Started out of hole 6:30 p.m. (10 minutes to disperse gas). Both charts identical. Drop in F.S.I.P. & F.H.P. on bottom bomb due lessening of mud column. Readings (above) are from bottom bomb. Pressures on bottom chart slightly higher than top. Attached Sheet shows Pressure readings at Well head during Surface Shut in. Maximum Stabilized Flow 4.6 Mcmcf/d. Well Head Shut In Pressure 1525 p.s.i.

Geologist/Geophysicist: R.D. Benbow
EXOIL (N.T.) - EAST MERENIE NO. 1
D.S.T. NO. 5 3669' - 3776' BOTTOM RECORDER
## Surface Shut-in (Pressures)

<table>
<thead>
<tr>
<th>Time (Elapsed) Mins.</th>
<th>Reading (p.s.i.)</th>
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<tbody>
<tr>
<td>5:20</td>
<td>Shut In (525)</td>
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<tr>
<td>1</td>
<td>700</td>
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<td>2</td>
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<td>1505</td>
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<td>20</td>
<td>1525</td>
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</tbody>
</table>

Pressure Steady at 1525 for for 25 minutes.
6:05 Bled off gas.

Maximum Well Head Shut In Pressure 1525 p.s.i. (Stable)
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MEREDEN No. 1 Elevation K.E. 2565' G.L. 2554' Date: 24th June, '64
Test No.: 6 Interval: 3774'-3825' Operator: Exxon

4 1/2" Johnston C.O. Tester, Size & Type: 7 1/2" Open Hole Packer, Size & Type: 51' 62"

51' 62" Anchor Length & OD.: Drill Collar footage above Tester: 270' 62"

Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0032

Pressure

Type: T1 Position: Bottom Tail Pipe From: 3774' To: 3784'

Anchors

T1 Above packer Perforations From: To:

Disk Valve Position: 3641' Water Cushion: Nil Mud Wt.: 13.4 Vis: 62

Chokes - Top: Nil B.H.: Nil Drill pipe, size & Type: 4 1/2" x 16.6

Fu-Hole, Size & Depth: 8 1/2" 3807' Rat Hole, Size & Depth: 7 1/2" 3825'

Mud Level, Before Valve Opened: Surface After Valve Opened: Surface

Time Record: Started In: 6:15 a.m. Set Packer: 7:57 a.m. Valve Opened: 8:02 a.m.

Disk Broken: 8:32 a.m. Valve Shut See below Packed: 10:41 a.m. Out of Hole: 1:15 p.m.

Nature of Flow: Gas to surface 15 mins. strong initial blow, blowing gas and mud for 15 mins., steady blow after clearing mud.

Pressure Gauge 4" Critical Flow Prover (1 1/2" Choke)

Gas Flow Measuring Method: Pitot Tube and Manometer through 4" Riser (Mercury)

C.F.P. 6.37 8.40 8.45 8.50 9:00 9:30 steady

Reading Meter (psi) 45 50 55 60 65 stable

Rate of Flow: 2819 3188 3427 3643 3919 (surf) 65 T

Oil or Water Flow: Nil

Fluid Recovered: 3 gallons Condensate (slightly mud cut)

Chart Readings: Time elapsed, min.: 30 1/2 hour Flowing 1 hour F5I(surf) 1/2 Hour

Maximum Temperature: ≤ 200°F

Samples: One 500 cubic inch Pressure bomb (250 p.s.i.), one 100 cubic inch

Remarks: Pressure bomb (150 p.s.i.), 3 jars fluid.

Flowing pressure at Well Head 400 p.s.i. Surface Shut In 9:33 a.m. to 10:18 a.m. (Equivalent of Final Shut-In) Bleed off gas 10:18 a.m. to 10:40 a.m. Started out of Hole 11:00 a.m. (20 mins to Disperse gas).

Both charts identical, Pressures on bottom chart slightly higher than top. Drop in F.S.I.P. AND F.H.P. on bottom chart due lessening mud column. Readings (above) are from bottom bomb. Well Head Pressure during surface Shut In 1545 p.s.i. after 20 mins. (stable for 25 mins). Maximum stabilized flow 4 Mmcfd. Condensate is light, clear, has kerosene odour.

Geologist/Engineer: D.D. Benbow
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MERENDE NO. 4
Elevation K.B.: 2565'  G.L.: 2554'
Date: 26th June, '64

Test No.: 7
Interval: 3824' - 3852'
Operator: Exoil

Tester, Size & Type: 4 1/2" JOHNSTON C.O.
Packer, Size & Type: 7 1/2" Open Hole

Anchor, Length & O.D.: 28' - 4 1/4" Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: 0.0142
Drill Collars: 0.0032

Pressure
Type: T1
Position: Above packer
From: 3824'
To: 3840'

Bombs: T1
Perforations: 3852'

Disk Valve Position: 3704'
Water Cushion: Nil
Mud Wt.: 13.4 Vis.: 62

Chokes - Top: 3/4" B.H.: 3/4"
Drill pipe, size & Type: 4 1/2" E.H.

Pu' Hole, Size & Depth: 82" x 3840'
Rat Hole, Size & Depth: 72" to 3852'

Mud Level, Before Valve Opened: Surface
After Valve Opened: Surface

Time Record: Started In: 10:00 a.m.
Set Packer: 11:28 a.m.
Valve Opened: 11:32 a.m.

Disk Broken: 12:02 p.m.
Valve Shut: 1:25-2:30
Pulled Packer: 2:15 p.m.
Out of Hole: 4:00 p.m.

Nature of Flow: Gas to surface in 1 minute, strong initial blow, blowing condensate and gas after mud cleared.


Time:
12:10 12:20 12:20 1:00 1:00 Remaining steady for

Reading:
65 p.s.i. 90 p.s.i. 7" Mercury 105 p.s.i. 10" Mercury

Rate of Flow:
3919 5149 5220 5887 6470

Oil or Water Flow: flowed through separator; 12:25 to 1:30 mud & condensate to 1:0;
Fluid Recovered: 5 gallons condensate

Chart Readings: Time elapsed, mins.: IST 30 mins
Flowing: 90 mins
FSI Surface 25 mins
MSPM: IHP 2660 ISTP 1755 IFPP 1005 FP M 1154 FSIP 1755 FHP 2645

Maximum Temperature: Less than 200°F

Samples: 150 cubic inch bomb at 180 P.s.i., 2-gallon separator inlet & 2-100 cubic inch bomb at

Remarks: Flow temp. 65°F or less - thermometer broken last reading of
mercury high due to high fluid content in gas. Flowing pressure at well
head 600 p.s.i., during surface shut-in, well-head pressure built up to
1550 p.s.i. in 20 mins. Bled off gas from 2:00 - 2:15 p.m., started out
of hole at 2:30 p.m. - dispersed gas for 15 mins. Both charts identical,
maximum stabilized flow 5.9 Mscfd.

Geologist/Engineer: D. D. Benbow
EXOIL (N.T.) - EAST MERREENIE NO. 1
D.S.T. NO. 7: 3624' - 3852' TOP RECORDER
DRILL STEM TEST REPORT

Well: EAST MERENNIE NO. 1  Elevation K.E.: 2565'  G.L.: 2554'  Date: 28th June, 1964

Test No.: 8  Interval: 3851' - 3885'  Operator: Excil

Tester, Size & Type: 4 1/4" Johnston C.O.  Packer, Size & Type: 7 1/16" Open Hole

Anchor, Length & C.D.: 34' 4 1/4"  Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: 0.0142  Drill Collars: 0.0032

Pressure  

Type: T1  Position: Bottom Test Pipe  (From: 3851' To: 3873')

Bombs  

Type: T1  Above packer  Perforations  (From: To:)

Disk Valve Position: 3684'  Water Cushion: Nil  Mud Wt.: 13.6  Vis.: 60

Chokes - Top: Nil  B.H.: Nil  Drill pipe, size & Type: 4 1/4" x 16.6

F-1 Hole, Size & Depth: 8 1/4"  3885'  Rat Hole, Size & Depth:  

Mud Level, Before Valve Opened: Surface  After Valve Opened: Surface

Time Record: Started In: 7:30 a.m.  Set Packer: 9:25 a.m. Valve Opened: 9:30 a.m.

Disk Broken: 10:00 a.m.  Valve Shut: 11:00 a.m. Pulled Packer: 12 noon Cut of Hole: 12:00 p.m.

Nature of Blow: Gas to surface in 1 minute, strong initial blow, increasing slightly for 15 mins., steady for remainder of Flow.


Reading:  

Time: 10:05  10:20 steady for remainder 10:55 after 5 mins. surface

Oil or Water Flow: Nil

Fluid Recovered: 270' slightly gas cut drilling mud.

Chart Readings:  

Time elapsed, mins.: TSI  4 hour  Flowing 1 hour  FST  1 hour

Pressures:  THP 2715  ISP  1715  IFP  120  FSP  145  FSIP  1755  FHP  2715

Maximum Temperature: Less than 200°F

Samples: 2 100 cubic inch Pressure Bombs (60 p.s.i.), 2 Jars Fluid

Remarks: * Reading not reliable.

Both charts identical, readings on bottom bomb, slightly higher than top, readings (above) are from bottom bomb. Shut-In at surface for 5 mins. to collect samples. Maximum stabilized flow 550 M.C.F.D.

Geologist: D.D. Benbow
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MERZENIE NO. 1  Elevation K.B.: 2565'  G.L.: 2554'  Date: 30th June, 1964
Test No.: 9  Interval: 3985'-3945'  Operator: Exoil
Caster, Size & Type: 4½" Johnston C.O.  Packer, Size & Type: 7½" Open hole
Anchor, Length & O.D.: 60'  6½"  Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: 0.0142  Drill Collars: 0.0032
Pressure
Type: T1  Position: Bottom Tail Pipe
Anchor
Bombs
Type: T1  Above packer
Perforations

Disk Valve Position: 3745'  Water Cushion: Nil  Mud Wt.: 13.5  Vis.: 57
Chokes - Top: nil  B.H.: nil  Drill pipe, size & Type: 4½" x 16.6

"1 Hole, size & Depth: 3945'  Rat Hole, size & Depth: —

Mud Level, Before Valve Opened: Surface  After Valve Opened: Surface
Time Record: Started In: 4:45 a.m.  Set Packer: 6:06 a.m.  Valve Opened: 6:10 a.m.
Disk Broken: 6:40 a.m.  Valve Shut: 7:42 a.m. Pulled Packer: 8:42 am Out of Hole: 10:30 a.m
Nature of Blow: Gas to surface in 2 mins., strong initial blow, remaining
steady throughout flow period.

Reading: "H2O"  1  1
Rate of Flow: 555  555  m.c.f.d.

Oil or Water Flow: Nil

Fluid Recovered: 240' slightly gas cut drilling mud

Chart Readings: Time elapsed, mins.: ISIP  1 hour, Flowing 1 hour  FSI 1 hour

Pressures:

Maximum Temperature: Less than 200°F

Samples: 1 - 100 cubic inch Pressure bomb (100 p.s.i.)  1 - 100 cubic inch

Remarks: Pressure bomb (70 p.s.i.), 2 Jars Fluid
5 minute Surface Shut In near end of Flow to collect samples. Both charts identical. Pressures on bottom chart slightly higher than top.
Readings (above) from bottom chart. Maximum stabilized flow 550 m.c.f.d.

Geologist: D.D. Benhow
DRILL STEM TEST REPORT

Well: EAST MERIEGNE NO. 1  Elevation K.B.: 2565'  G.L.: 2554'  Date: 2nd July, '64.
Test No.: 10  Interval: 3946' - 4009'  Operator: Exxon

Fitter, Size & Type: Johnston C.O.  Packer, Size & Type: 7½" Conventional
Anchor, Length & O.D.: 63" x 6½"  Drill Collar Footage above Tester: 270'
Capacity (bbl./foot) - Drill Pipe: 0.0142  Drill Collars: 0.0032

Pressure
- Type: T1  Position: Above packer  (From: 3946' To: 3968')
- Anchor
- Perforations (From: To: )

Disk Valve Position: 3606'  Water Cushion: Nil  Mud Wt.: 13.5  Vis: 85
Chokes - Top: B.H.: Drill pipe, size & Type: 4½" F.H.
Full Hole, Size & Depth: 8½" x 4009'  Rat Hole, Size & Depth:
Mud Level, Before Valve Opened: Surface  After Valve Opened: Surface

Time Record: Started In: 6:45 a.m.  Set Packer: 7:54 a.m.  Valve Opened: 7:57 a.m.
Nature of Blow: Weak initial puff, dying

Gr. Flow Measuring Method:
Time:
Rate of Flow:
Oil or Water Flow:
Fluid Recovered: 6 gallons mud

Chart Readings: Time elapsed, mins.: ISI 30 mins. Flowing 1 hour  FSII
- Jures: 1HP 2733  ISIP 80  IPP 80  FFP 80  FSIP - PHP 2733
Maximum Temperature: Less than 200°F
Samples: 2 Jars fluid
Remarks: Test mechanically successful. Formation tight.

Geologist: D.D. Benbow
Well: EAST MENEENIE NO. 1   Elevation K.B.: 2565'   G.L.: 2554'   Date: 5th July, 1964
Test No.: 11   Interval: 4115' - 4139'   Operator: Exoil
Tester, Size & Type: 4 1/2" Johnston C.O.   Packer, Size & Type: 7 1/2" open hole
Anchor, Length & O.D.: 34" x 4 1/2"   Drill Collar Footage above Tester: 270'
Capacity (bbl./foot) - Drill Pipe: 0.0142   Drill Collars: 0.0032

- Pressure
  - Type: T1
  - Position: bottom tail pipe
    - From: 4115' To: 4125'
  - Anchor
    - Perforations
      - From: To:

Disk Valve Position: 3977'   Water Cushion:    Mud Wt.: 13.2   Vis: 77
Chokes - Top: Nil   B.H.: Nil   Drill pipe, size & Type: 4 1/2" P.H.
Full-Hole, Size & Depth: 8 1/2" - 4125'   Rat Hole, Size & Depth: 7 1/2" - 4139'
Mud Level, Before Valve Opened: Surface   After Valve Opened: Surface
Time Record: Started In: 11:45 a.m.   Set Packer: 1:37 p.m.   Valve Opened: 1:42 p.m
Disk Broken: 2:12 p.m.   Valve Shut: 2:57 p.m.   Pulled Packer: 3:27 p.m.   Out of Hole: 5:00 p.m.
Nature of Blow: Gas to surface in 1 minute.

Gr. Flow Measuring Method: Pitot and manometer through 4 3/4" riser

Time: 2:20 p.m. and steady thereafter
Reading: 3.3" water
Rate of Flow: 300,000 c.f.d.
Oil or Water Flow: Nil
Fluid Recovered: 130' very slightly gas cut drilling mud

Chart Readings: Time elapsed, mins.: ISIP 30 mins.   Flowing 45 mins. FSI 30 mins
- IHP 2385   ISIP 1745   IPP 101 FPP 101   FSIP 1765   FHP 2820

Maximum Temperature: Less than 200°F

Samples: 1 - 500 cubic inch bomb - 50 p.s.i. and 2 Jars Fluid
Remarks: * ISIP still increasing at end of shut in period.

Clock stopped on top bomb - readings from bottom bomb. Maximum stabilized flow 300 M.C.F.D.

Geologist/Engineer: D.D. Benbow
EXOIL NO LIABILITY

DRILL STEM TEST REPORT


Test No.: 12 Interval: 4140'-4180' Operator: Exxon

Tester, Size & Type: 4 1/2" Johnston 'C.O.' Packer, Size & Type: 7 1/2" Open hole

Anchor, Length & O.D.: 40' x 4 1/2" Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: 0.142 Drill Collars: 0.032

Pressure

- Type: T1 Position: 4140'
- Anchor From: 4140' To: 4162'
- Perforations From: To:

Disk Valve Position: 4002' Water Cushion: nil Mud Wt.: 13.1 Vis: 68

Chokes - Top: B.H.: Drill pipe, size & Type: 4 1/2" Full Hole

Rat Hole, Size & Depth: 8 1/2" x 4180'

Full Hole, Size & Depth: 8 1/2" x 4180'

Mud Level, Before Valve Opened: After Valve Opened:

Time Record: Started In: 9:45 A.M. Set Packer: 11:46 A.M. Valve Opened: 11:50 A.M.

Disk Broken: 12:20 P.M. Valve Shut: 1:41 P.M. Pulled Packer: 2:11 P.M. Out of Hole: 3:45 P.M.

Nature of Blow: Gas to surface in 4 minutes, strong initial blow increasing slowly throughout flow period, stable at end.


Time: 2" riser: 12:25 P.M. 12:30 P.M. 12:45 P.M. 1:00 P.M. 1:10 steady

Reading: 2.6" water 2.8" 3.1" 3.2" 4.0" 4.8" (7/16" water)

Rate of Flow: 220 235 240 250 270 300 350 mcfd

Oil or Water Flow: nil

Fluid Recovered: 130' slightly gas-cut drilling mud.

Chart Readings: Time elapsed, mins.: ISI 50 mins Flowing 60 mins ISI 30 mins

Pressures: ISP 2845 ISP 1705 IFP 105 FFP 130 FSIP 1785 FHP 2845

Maximum Temperature: Less than 200°F

Samples: 2 - 100 cubic inch bombs, one at 100 p.s.i.; one at 75 p.s.i. 2 Jars

Remarks: Both shut-in pressures still increasing FSIP smallest inside diameter of tool is 3/8".

Both charts identical - readings from bottom chart. Maximum stabilized open flow 350 mcfd. Ten minutes surface shut-in at end of flow period to collect samples.

Geologist/Engineer D.D. Benbow
Exoil (N.T.) - East Merreenie No. 1
D.S.T. No. 12 7.7.64 4140’ - 4180’
Top Recorder
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MEERENIE NO. 1  Elevation K.B.: 2555'  G.L.: 2554'  Date: 10th July, '64
Test No.: 13  Interval: 4245'—4273'  Operator: Exxon

Tester, Size & Type: 4 1/2" Johnston "C.O."  Packer, Size & Type: 7 1/4" Open Hole
Anchor, Length & O.D.: 28' x 4 1/2"  Drill Collar Footage above Tester: 220'
Capacity (bbl./foot) — Drill Pipe: .0142  Drill Collars: .0032

Pressure
   Type: T1  Position: T1
   Anchor
   Perforations
   From: 4245'  To: 4261'
   Disk Valve Position: 4140'
   Water Cushion: —  Mid Wt.: 13.1  Vis.: 64
   Chokes — Top: —
   B.H.: —
   Drill pipe, size & Type: 4 1/2" x 16.6
   Full Hole, Size & Depth: 8 1/4" to 4273'
   Rat Hole, Size & Depth: —
   Mud Level, Before Valve Opened: Surface
   After Valve Opened: Surface

Time Record: Started In: 8:30 a.m.  Set Packer: 10:43 a.m.  Valve Opened: 10:47 a.m

Disk Broken: 11:31 am  Valve Shut: 12:40 p.m.  Pulled Packer: 1:09 p.m.  Out of Hole: 3 p.m.
Nature of Blow: Gas to surface in 4 minutes. Strong initial blow. Blow steadily increasing for 20 minutes then gradually increasing for remainder of flow.


Rate of Flow: 860 900 961 1050 3100 1190 1200 1450 1480 150

Fluid Recovered: 280' gas cut drilling mud

Chart Readings: Time elapsed, mins.: TSP 45 mins  Flowing 70 mins  FST 30 mins.
Pressures:
   THP 2460  ISP 1785  TFP 200  FPF 290  FSP 1785  FHP 2780

Maximum Temperature: Less than 200°F

Samples: 2 — 100 cubic inch pressure bombs 150 p.s.i. 2 gallons fluid.

Readings from critical flow prover: 12:05, 16 lbs., 1459 Mcf/pd.
12:20 20 lbs., 1707 Mcf/pd.

Geologist/Engineer  D. D. Benbow
DRILL STEM TEST REPORT

Well: EAST MEREDIE NO. 1  Elevation X.B.: 2565'  C.L.: 2554'  Date: 11th July, '  
Test No.: 14  Interval: 4272'-4306'  Operator: Exoil  
Tester, Size & Type: 43/4" Johnston "C.O."  Packer, Size & Type: 7/8" Open hole  
Anchor, Length & O.D.: 34' x 43/4"  Drill Collar Footage above Tester: 270'  
Capacity (bbl./foot) - Drill Pipe: .0142  Drill Collars: .0032  
Pressure  Type: T1  Position: Anchor  
Bomb  Type: T1  Position: Perforations  
Disk Valve Position: 4180'  Water Cushion: 4272'  Xud Wt.: 13.2  Vis: 62  
Chokes - Top: 2930'  B.H.: 4272'  Drill Pipe: size & Type: 49/8" x 16.6'  
Pull Hole, Size & Depth: 81/2 to 4273'  Rat Hole, Size & Depth: 71/4 to 4306'  
Mud Level, Before Valve Opened: Surface  After Valve Opened: Surface  
Time Record: Started In: 10:50 a.m.  Set Packer: 12:12 p.m.  Valve Opened: 12:17 p.m.  
Disk Broken: 12:47 p.m.  Valve Shut: 1:53 p.m.  Pulled Packer: 2:28 p.m.  Out of Hole: 4:30 p.m.  
Nature of Flow: Gas to surface in 3 minutes. Strong initial flow increasing steadily for 25 minutes then steady for remainder of flow.  
Time: 12:50  12:55  1:00  1:10  1:15  
Rate of Flow: 2.8  4"  6"  6.2"  6.4"  
Oil or Water Flow: 930  1100  1360  1380  1410  Steady for remainder of flow.  
Fluid Recovered: 110' slightly gas cut drilling mud.  
Chart Readings: Time elapsed, min.: IST 30 mins Flowing 65 mins FSI 35 mins  
Pressures:  IHP 2915 ISTP 1795 IFTP 240 FFTP 265 PSTP 1795 FHP 2915  
Maximum Temperature: Less than 200°F  
Samples: 2 - 100 cubic inch Pressure Bombs 150 p.s.i. 2 Gallons fluid.  
Remarks: Both charts identical. Readings above from bottom chart. Maximum stabilised flow 1.4 Mmcfpd. Ten minutes surface shut-in at end of flow period to collect samples.  
Readings from Critical Flow Prover 1:01 p.m. 15.1 lbs. 1459 Mmcfpd.  
1:20 p.m. 17 lbs. 1557 Mmcfpd.  

Geologist/Engineer D.D. Benbow
EXOIL (N.T.) - EAST MEREENIE NO. 1
D.S.T. NO. 14 11.7.  4272' - 4306'
TOP RECORDER
EXOIL NO LIABILITY

DRILL STEM TEST REPORT

Well: EAST MEREDENIE NO. 1  Elevation K.B. : 2865'  G.L. : 2564'  Date: 17th July '64


Test, Size & Type: 4 3/4" Johnston "C.O." Packer, Size & Type: 73" Open hole

Anchor, Length & O.D.: 56' x 63"  Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: .0142  Drill Collars: .0045

Pressure

Type: T1  Position: Above packer  From: 4469'  To: 4484'

Anchor  Bottom Tail Pipe Perforations  From:  To:

Disk Valve Position: Above packer  Water Cushion: Nil  Mud Wt.: 13.1  Vis: 52

Chokes - Top:  B.H.:  Drill pipe, size & Type: 43" x 16.6

Full Hole, Size & Depth: 61” to 4490’  Rat Hole, Size & Depth:

Mid Level, Before Valve Opened:  Surface  After Valve Opened:  Surface

Time Record: Started In: 2 p.m.  Set Packer: 3:40 p.m.  Valve Opened: 3:51 p.m

Disk Broken: 4:22 p.m.  Valve Shut:  Pulled Packer:  Out of Hole:

Nature of Flow: Gas to surface in three minutes, Strong initial flow

Gas Flow Measuring Method:

Time:

Reading:

Rate of Flow:

Oil or Water Flow:

Fluid Recovered:

Chart Readings: Time elapsed, mina.: ISI 30 mins  Flowing  FSI

Pressures: IHP 3004  ISIP 1775  IFP  FFP  FSIP  PHP 3004

Maximum Temperature:

Samples:


* Ran in new four-stage initial shutoff tool. Tool run in hole in open position after one minute drawdown tool closed for initial shutin rate.

**Go-devil broke pin on reverse circulating sub allowing mud to enter drill pipe. Mud level at surface dropped.

Geologist/Engineer: D.D. Benhow
EXOIL NO LIABILITY
DRILL STEM TEST REPORT


Test No.: 16 Interval: 4450' - 4501' Operator: Exoil

Tester, Size & Type: 4 2/8" Johnston C.O. Packer, Size & Type: 7 5/8" Open Hole

Anchor, Length & O.D.: 51' 62" Drill Collar Footage above Tester: 270'

Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0045

Pressure Bombs (Type: T1 Position: Bottom Tail Pipe)

Disk Valve Position Above tester: Nil Water Cushion: Nil Mud Wt.: 13.2 Vis: 68

Chokes - Top: Nil B.H.: Nil Drill pipe, size & Type: 4 3/4" x 16.6

F - Hole, Size & Depth: 8 1/16 44901 Rat Hole, Size & Depth: 7 13/16 45011

Mud Level, Before Valve Opened: Surface After Valve Opened: Surface

Time Record: Started In: 9:45 a.m. Set Packer: 11:32a.m Valve Opened: 11:42 a.m.

Disk Broken: 12:13 p.m Valve Shut: 1:20 p.m Pulled Packer: 2:05 p.m Out of Hole: 4:00 p.m

Nature of Blow: Gas to surface in 2 minutes, strong initial blow, steady for 2 hour, then increasing slightly and remaining steady for remainder of flow period.

Gas Flow Measuring Method: Pitot Tube and Manometer through 4" Riser

Time: 12:20 steady for 20 mins. 12:40 steady for remainder of flow

Reading: 1" 1.2" "H2O

Rate of Flow: 555 620 mcfds

Oil or Water Flow: Nil

Rec'd Recovery: 250' gas out drilling mud.

Chart Readings: Time Elapsed, mins: ISI 4 hour Flowing: 1hr 2min PSI 4 hour

Pressures: IHP 3002 ISIP 1775 IFF 168 FFP 181 FSIP 1775 FHP 3004

Maximum Temperature: Less than 200°F

Samples: 2 - 100 cubic inch Pressure Bombs (100 p.s.i.), 2 Jars Fluid

Remarks: Both charts identical. Readings above from bottom chart. 10 minutes surface Shut-In at end of flow period to collect samples. Maximum stabilized Flow 620 mcfd.

Note: Minimum I.D. Tool 3 1/8; 1 minute Draw down between valve opening and Shutting-In of 4 stage Tool.

Geologist: D.D. Benbow
EXOIL NO LIABILITY

DRILL STEM TEST REPORT


Test No.: 17  Interval: 4501' - 4532'  Operator: EXOIL

- Tester, Size & Type: 4½” Johnston: C.O.  Packer, Size & Type: 7½” Open Hole
- Anchor, Length & O.D.: 32’ 4½”  Drill Collar Footage above Tester: 270’
- Capacity (blbl./foot): Drill Pipe: 0.0142  Drill Collars: 0.0045

Pressure (Type: T1  Position: Above Packer) (From 4502’ To 4527’)

- Shut In Tool

- Dense Fluid

- Water Cushion: Nil  Mud Wt.: 13x1  Vis: 67

Chokes - Top: Nil  B.H.: Nil  Drill pipe, size & Type: 4½” x 16.6
- Hole, Size & Depth: 8½”  4532
- Rat Hole, Size & Depth: -

Mud Level, Before Valve Opened: Surface  After Valve Opened: Surface

Time Record: Started In: 1:00 pm  Set Packer: 2:50 pm  Valve Opened: 2:59 pm
- Tool Opened: 3:52 pm  Valve Shut: 4:55 pm  Pulled Packer: 4:54 pm  Out of Hole: 6:00 pm

Nature of Blow: Strong initial air blow gradually weakening; Gas to surface in
- 50 minutes. Flow too small to measure.

Gas flow Measuring Method:

- Time:

- Reading:

- Rate of Flow:

- Oil or Water Flow: Nil

- Mud Recovery: 90’ very slightly gas cut drilling mud.

Chart Readings: Time Elapsed, mins: ISI 3 hour Flowing: 1 hour FSI Nil

- Pressures: IIFP 3043  ISIP 913  IIF 50  FFP 63  FSIP -  FHP 3043

- Maximum Temperature: Less than 200°F (132°C) - Bottom Hole.

Samples: 2 Jars Fluid.

Remarks: 3 minutes Drawdown on Formation before initial shut-in.

Both charts identical, Readings above from bottom chart. No final Shut-In taken. Test mechanically successful.

- Initial Shut-In Pressure still increasing at end of Initial Shut-In Period.

Geologist: D.D. Benbow
EXOIL NO LIABILITY
DRILL STEM TEST REPORT

Test No.: 18 Interval: 4555' - 4606' Operator: Exoil
Tester, Size & Type: 4½" Johnston C.O. Packer, Size & Type: 7½" Open Hole
Anchor, Length & O.D.: Drill Pipe: 51' x 63' Drill Collar Footage above Tester: 270'
Capacity (bbl./foot): Drill Pipe: 0.0142 Drill Collars: 0.0045

Pressure

Type: T1 Position: Above packer

Anchor

Perforations (from 4555' to 4565')

Shut In Tool

Position: Above tester Water Cushion: Nil Mud Wt.: 13.1 Vis: 61

Chokes - Top: B.H.: - Drill pipe, size & Type: 4½" x 16.6

F Hole, Size & Depth: 8½' to 4606' Rat Hole, Size & Depth: -

Mud Level, Before Valve Opened: Surface After Valve Opened: Surface

Time Record: Started In: 10 am. Set Packer: 11:24 am. Valve Opened: 11: 25 a.m.

Cool Opened: 12:22 pm Valve Shut: 1:07 pm Pulled Packer: 1:10 pm Out of Hole: 2:30 pm

Nature of Blow: Weak initial air blow gradually decreasing to faint puff. No gas to surface.

Gas flow Measuring Method:

Time:

Reading:

Rate of Flow:

Ole or Water Flow:

G1_d Recovery: 40' slightly gas cut drilling mud.

Chart Readings: Time Elapsed, mins: ISI 45 mins Flowing: 45 mins FSI not taken

Pressures: IFP 3082 ISIP 246* IFP 50 FSP 63 FSIP - FHP 3082

Maximum Temperature: 156°F (bottom hole)

Samples: 2 Jars fluid

Remarks: 2 minutes drawdown on formation before initial shut-in. Both charts identical. Readings from bottom chart. Test mechanically successful.

* ISIP still increasing at end of initial shut-in period.

Geologist: D.D. Berhow