

D.S.T. REPORTS AND CHARTS



M0970097

DRILL STEM TEST REPORT

Well: East Mereenie No. 4 Elevation K.B.: 2368' G.L.: 2352' Date: 13th May, 1967.
 Test No.: 1 Interval: 4184' - 4215' Operator: Exoil
 Tester, Size & Type: 4 1/2" Johnston CO Packer, Size & Type 8 1/2" Open Hole
 Anchor, Length & O.D.: 31' 4 3/4" Drill Collar Footage above Tester: 255'
 Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure (Type: T1 Position: Bottom Tail Pipe (From 4185' To 4209'
 Bombs (T1 Above Packer Anchor Perforations (From - To -

Shut In Tool

Disk Valve Position: above tester Water Cushion: Nil Mud Wt.: 10.3 Vis: 28

Chokes - Top: Nil B.H.: 5" Drill pipe, size & Type: 4 1/2 x 16.6

Full Hole, Size & Depth: 9 3/8" 4190' Rat Hole, Size & Depth: 8 1/4" 4215'

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

Time Record: Started In: 12:30 p.m. Set Packer: 2:55 p.m. Valve Opened: 3:21 p.m.

Shut In Tool opened: 3:55 p.m. Valve Shut In: 4:13 p.m. Pulled Packer: 4:43 p.m. Out of Hole: 7:45 p.m.

Disk Broken: 3:55 p.m. Nature of Blow: Fair Initial Blow, weakening after thirty seconds, dying away to no blow after three minutes.

Gas flow Measuring Method: No gas to surface.

Time: -

Reading: -

Rate of Flow: -

Oil or Water Flow: -

Fluid Recovery: < 50' Drilling Fluid (salt water) from charts.

Chart Readings: Time Elapsed, mins: ISI 30 Flowing: 18 FSI 30

Pressures: IHP 2167 ISIP 338 IFP 24 FFP 24 FSIP 325 FHP 2167

Maximum Temperature: < 150°F Bottom Hole

Samples: Nil

Remarks: Note:- No chokes used. However I.D. of work pipe in 4 stage Initial Shut In Tool is 5/8" (effective choke). 3 minute drawdown on Formation before Initial Shut In. Clock stopped on top bomb, otherwise test mechanically successful. Readings above from bottom chart. Attempt reverse circulate after pulling packer not successful-Go devil did not release sleeve in reverse circulating tool.

Note:- No flow on this test difficult to reconcile with porosity in sandstone over interval 4194'-4201' (Core No. 1) - Charts indicate tools worked O.K. and no plugging was noticed in test string when tools broken down (except for loose sand which plugged off pipe in top of Shut In Tool). Geologist: _____



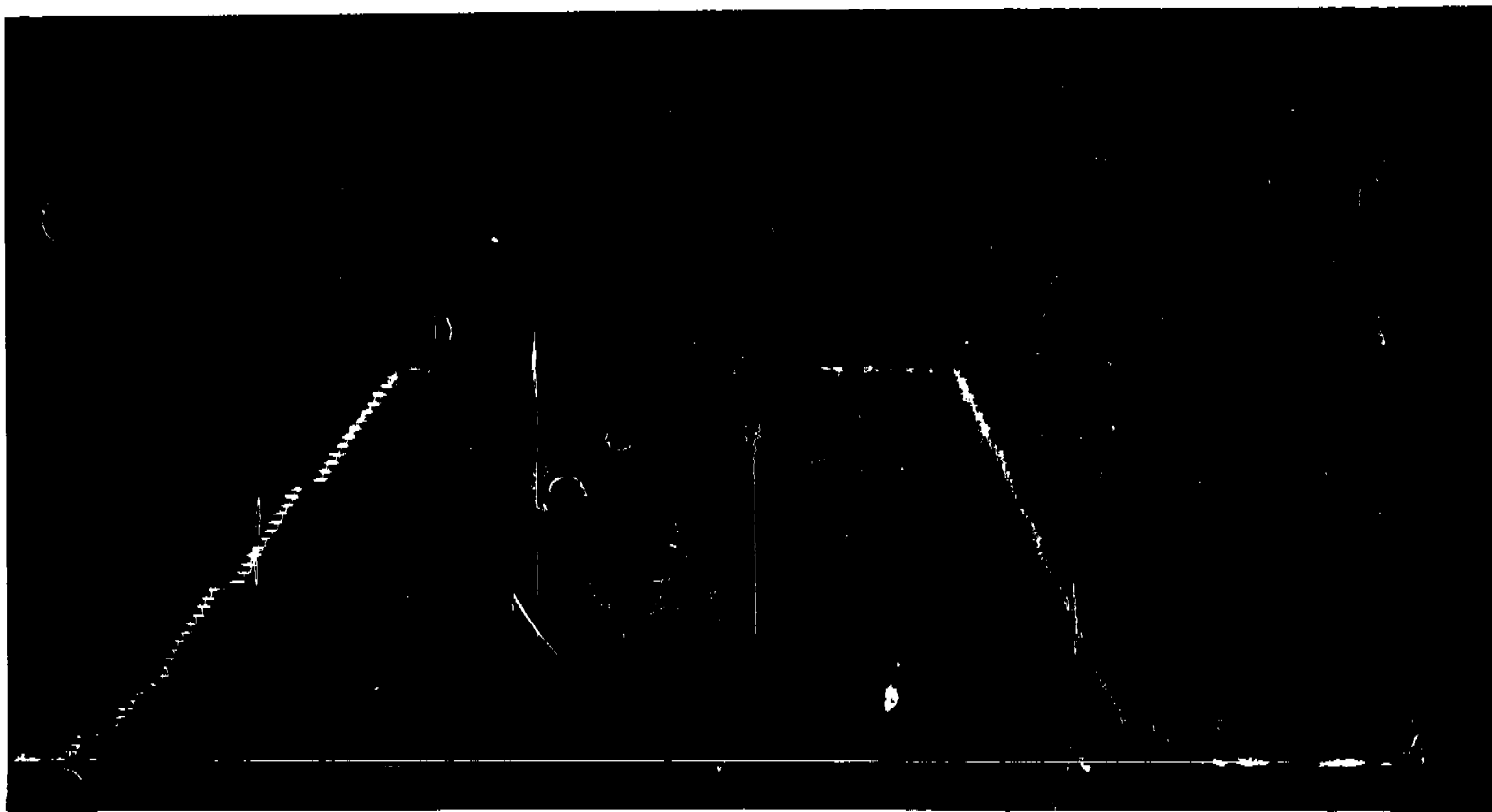
M0970098

EAST MERREENIE No. 4 - D. S. T. No. 1

4184' - 4215' 13.5. 67 BOTTOM CHART



M0970099



Well: East Mereenie No Elevation K.B.: 2368' G.L.: 2352' Date: 17th May, 1967
Test No.: 2 4 Interval: 4483' - 4585' Operator: Exoil
Tester, Size & Type: 4 1/2" Johnston C.O. Packer, Size & Type 8 1/2" Open Hole
Anchor, Length & O.D.: 102' 6 1/2" Drill Collar Footage above Tester: 287'
Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure (Type: T1 Position: Bottom Tail Pipe (From 4484' To 4513'
Bombs (T1 Above Packer Anchor ()
Perforations (From - To -)

Shut In Tool

Disc-Valve Position: Above Test Water Cushion: Nil Mud Wt.: 10.6 Vis: 28

Chokes - Top: Nil B.H.: 5" Drill pipe, size & Type: 4 1/2 x 16.6

Full Hole, Size & Depth: 9 7/8" 4585' Rat Hole, Size & Depth: -

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

Time Record: Started In: 9.00 p.m. Set Packer: 11.39 p.m. Valve Opened: 11.57 p.m.

Shut In Tool Opened Valve Shut In: - Pulled Packer: 12.10 am Out of Hole: 2:30 a.m.

Nature of Blow: Weak initial blow, dying after 1 1/2 minutes, dead for 1 minute,
weak for remainder of drawdown period (No. flow period - drawdown taken before
initial shut in for 3 minutes.

Gas flow Measuring Method: No gas to surface

Time: -

Reading: -

Rate of Flow: -

Oil or Water Flow: -

Fluid Recovery: 120' slightly oil cut drilling fluid (salt water)

Chart Readings: Time Elapsed, mins: ISI 10 Flowing: Nil FSI Nil

Pressures: IHP 2442 ISIP 233 IFP - FFP - FSIP - FHP 2442

Maximum Temperature: 150°F Bottom hole

Samples: 1 bottle fluid recovery

Remarks: 3 minute drawdown taken before initial shut in. Nature of blow (above)
describes blow during this period (flowing pressure 103 p.s.i. from bottom
chart during drawdown). Readings above from bottom chart. Test mechanically
successful. Test pulled after 10 minutes of I.S.I. period due gas cut salt
water kicking in annulus. I.S.I.P. shows peculiar 45° almost straight line
build up. Possible formation damage due drilling fluid.

Note:- Gas cut drilling fluid in annulus after packer set. Became stronger
after valve opened and forced pulling of test (no flow period or final shut
in taken)

Geologist: D. D. Benbow

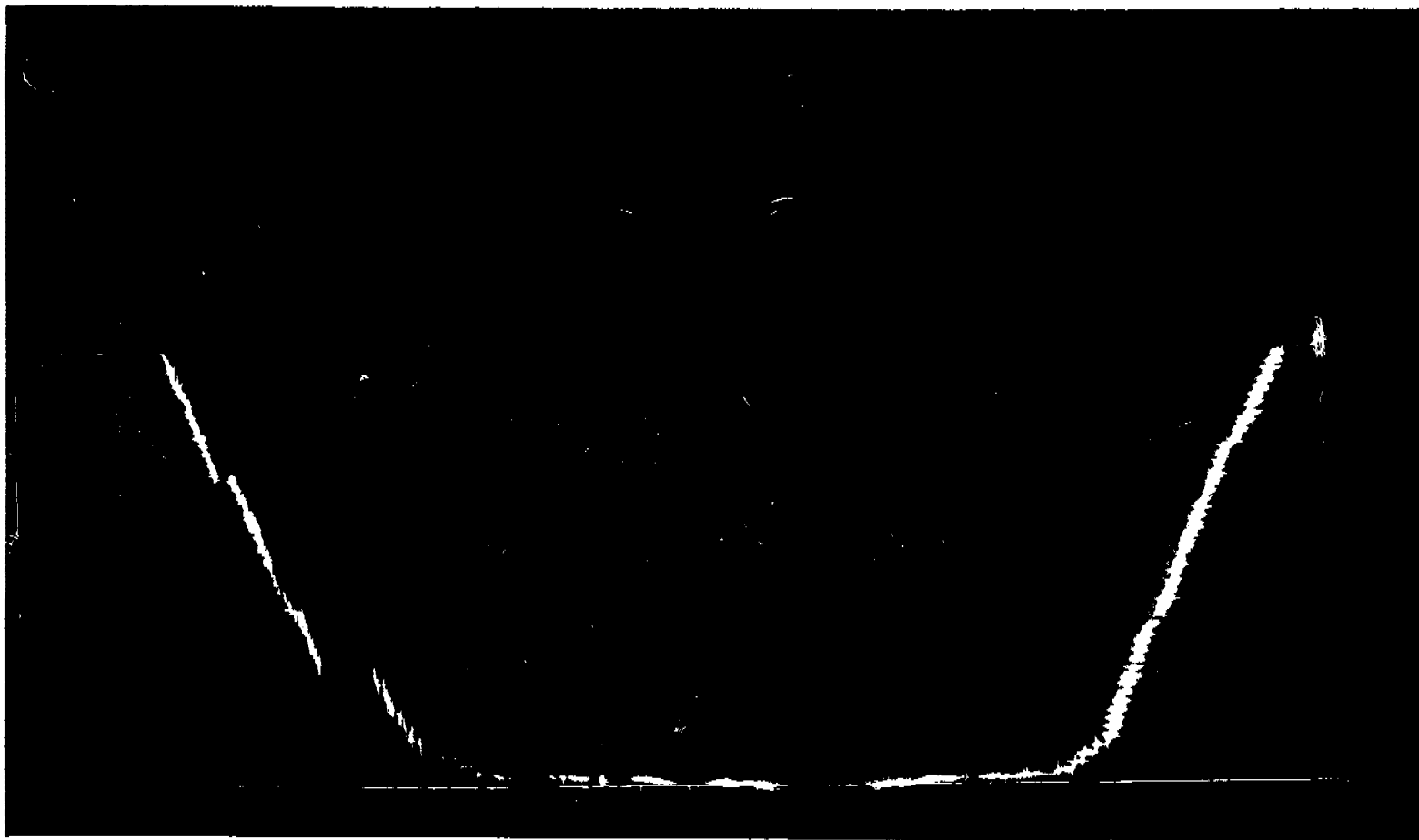


EAST MERREENIE No. 4 - D. S. T. No. 2

4483' - 4585' 18. 5. 67 BOTTOM CHART



M0970101

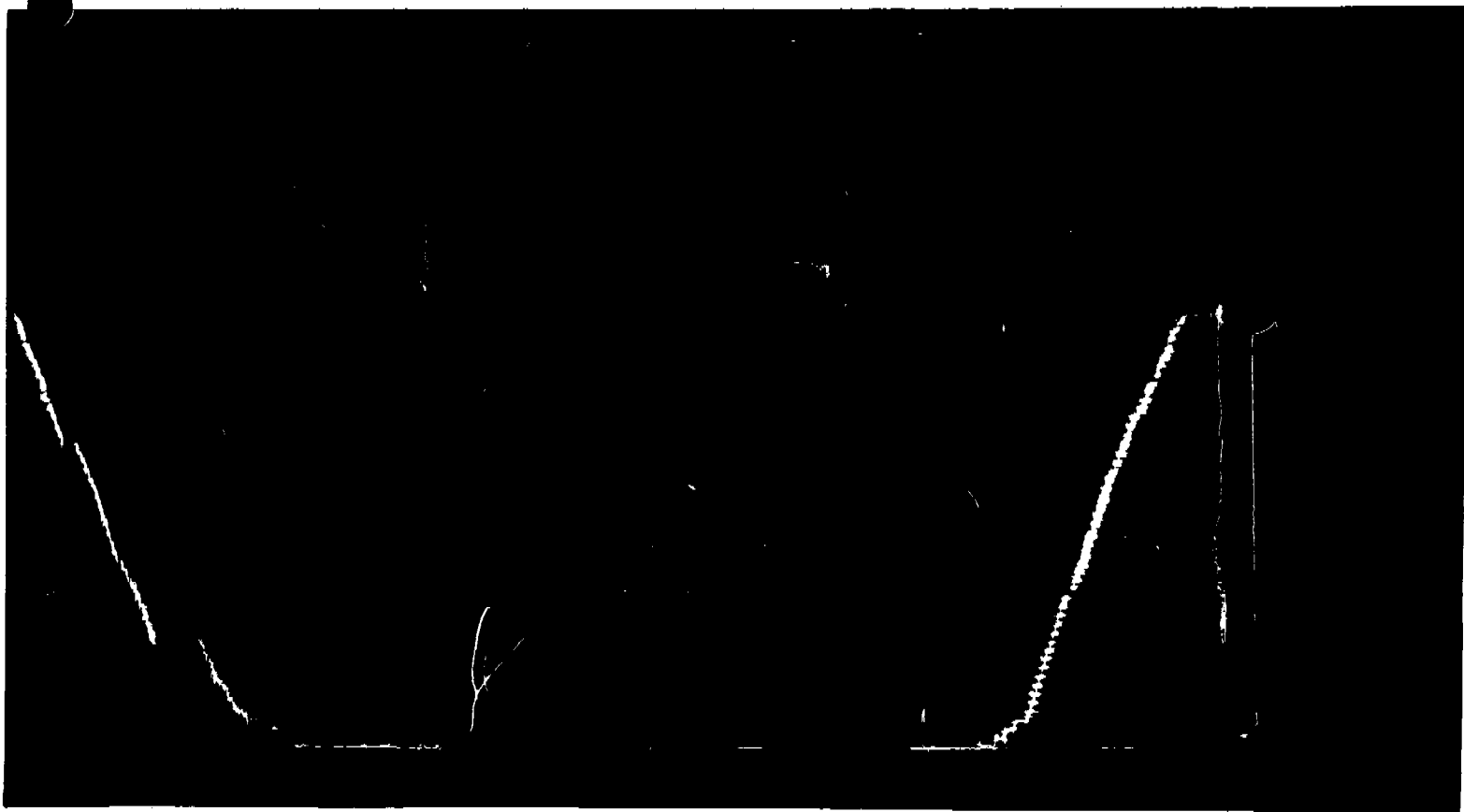


EAST MERREENIE No. 4 - D. S. T. No. 2

4483' - 4585' 18. 5. 67 TOP CHART



M0970102



DRILL STEM TEST REPORT

Well: East Mereenie Elevation K.B.: 2368' G.L.: 2352' Date: 24th May, 1967.
Test No.: 3 No. 4 Interval: 4483'-4585' Operator: Exoil
Tester, Size & Type: 4 3/4" Johnston CO Packer, Size & Type 8 1/2" Open hole.
Anchor, Length & O.D.: 102' 6 1/4" Drill Collar Footage above Tester: 287'
Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure (Type: T1 Position: Bottom Tail Pipe (From 4484' To 4513'
Bombs (T1 Above Packer Anchor
Perforations (From - To -

Shut in tool

~~DISK VALVE~~ Position: Above test Water Cushion: Nil Mud Wt.: 11.0 Vis: 38Chokes - Top: Nil B.H.: er 8" Drill pipe, size & Type: 4 1/2 x 16.6Full Hole, Size & Depth: 9 7/8" 4585' Rat Hole, Size & Depth: -Mud Level, Before Valve Opened: Surface After Valve Opened: SurfaceTime Record: Started In: 7:00pm Set Packer: 8:50pm Valve Opened: 9:07pm

Shut in tool opened Final

~~DISK VALVE~~ Broken 9:43pm Valve Shut In 10:13pm Pulled Packer: 10:45pm Out of Hole: 12:30 amNature of Blow: Weak initial blow during drawdown, very weak blow at beginning of flow period; almost dead throughout remainder of flowing period.Gas flow Measuring Method: No gas to surfaceTime: -Reading: -Rate of Flow: -Oil or Water Flow: NilFluid Recovery: 300' Oil cut drilling fluid (Mud).Chart Readings: Time Elapsed, mins: ISI 32 Flowing: 30 FSI 32Pressures: IHP 2520 ISIP 1906 IFP 116 FFP 194 FSIP 1423 FHP 2520Maximum Temperature: Less than 150° F.Samples: 2 tins fluid recovery.

Remarks: Note: 4 minute drawdown before initial shut in. Readings above from bottom chart. Test mechanically successful, both charts identical - "S" curve build up on final shut in indicates possible formation damage. Fluid level did not drop when packer pulled free; possible drilling fluid in formation (mud and salt water) filling below packer as recovery fluid rises in pipe. Note: I.S.I.P. and F.S.I.P. still building up at end of shut in period; note; also flattening out of flowing pressure after 15 minutes of flowing period. Formation appears porous but has low permeability. Chloride content fluid recovery 35,000 p.p.m.

Geologist: Dennis Benbow

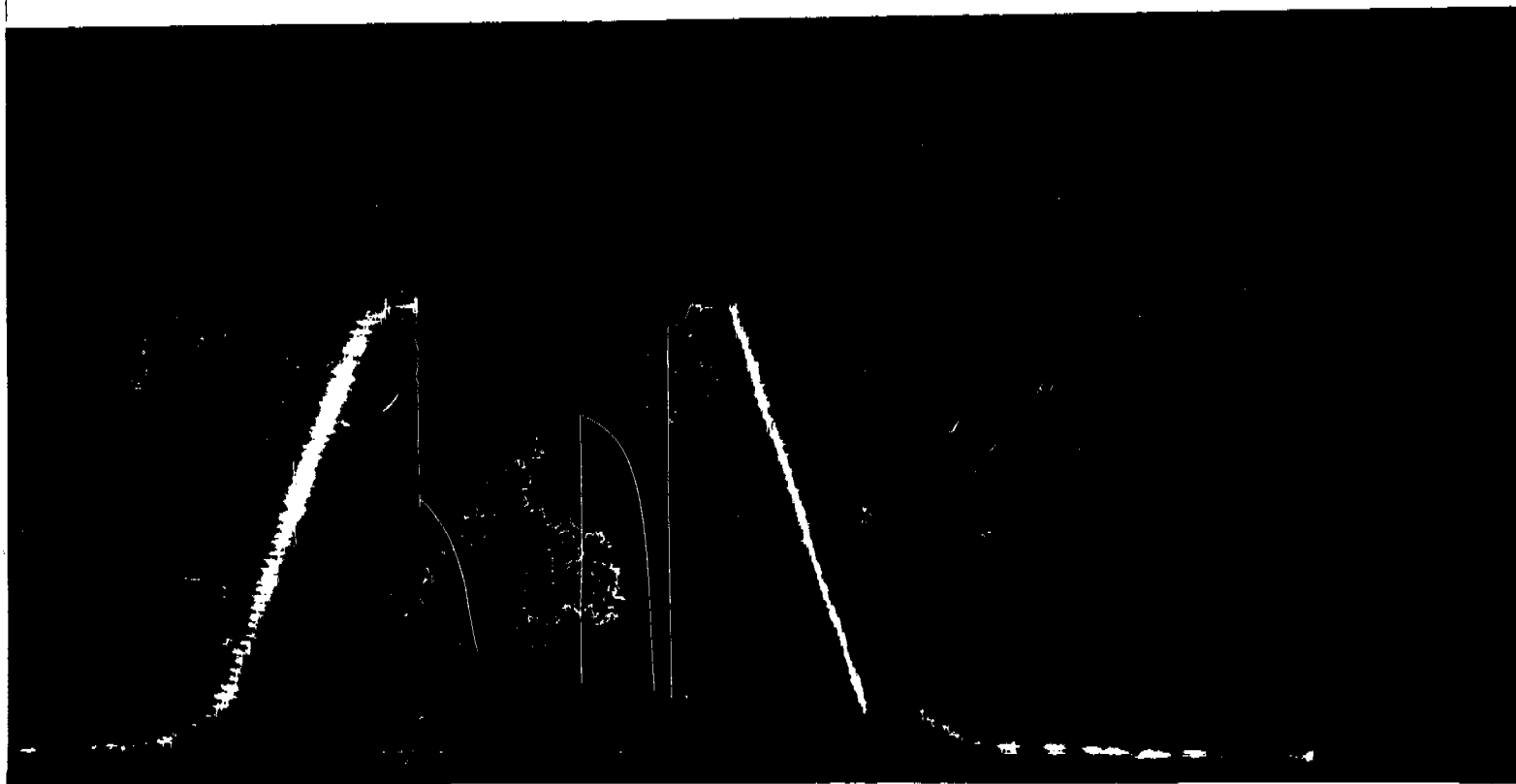
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EAST MEREE NIE No. 4 - D. S. T. No. 3

4 4 8 3' - 4 5 8 5' 24. 5. 67 B O T T O M C H A R T



M0970104

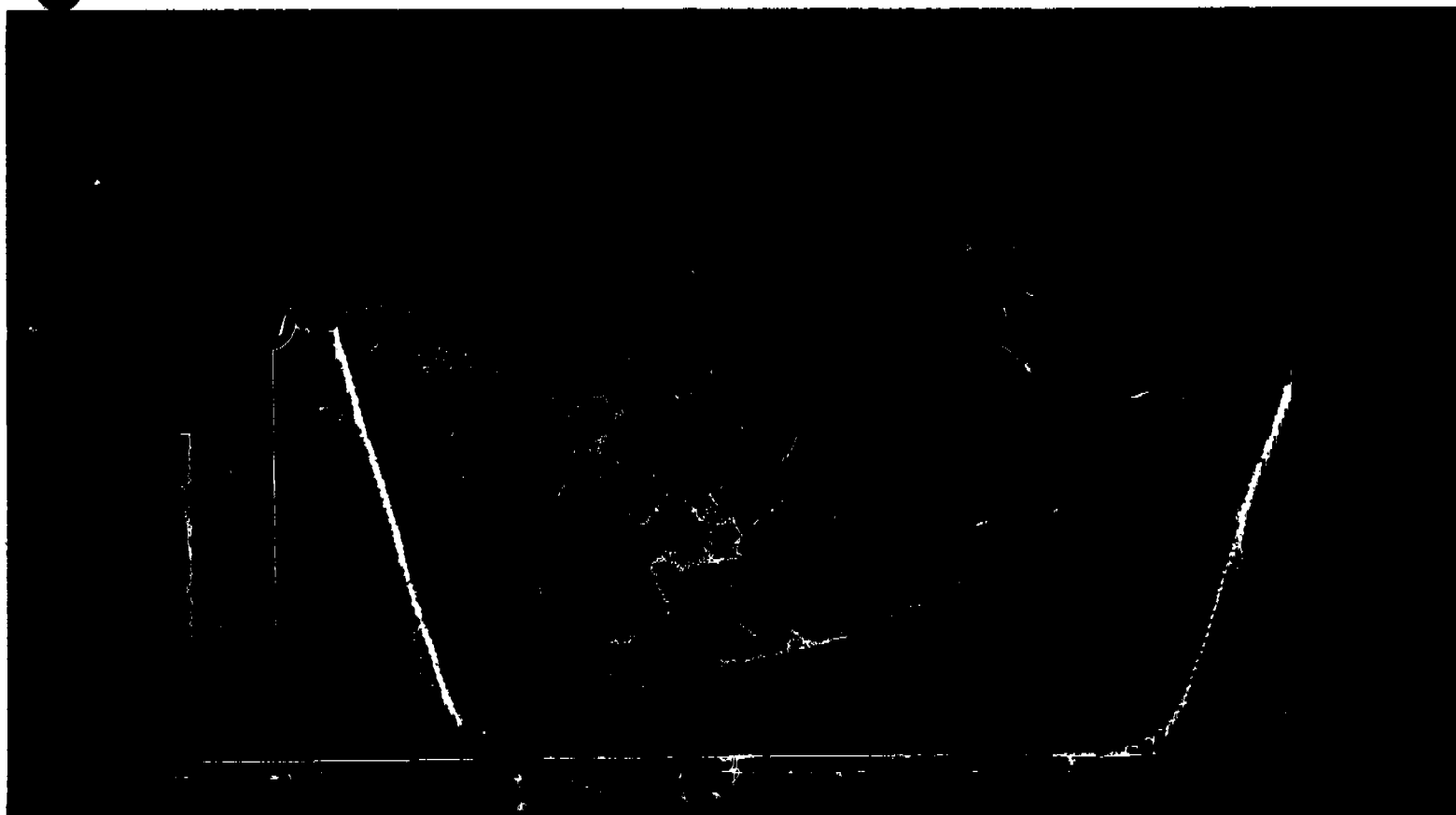


EAST MEREENIE No. 4 - D. S. T. No. 3

4 4 8 3' - 4 5 8 5' 24. 5. 67 TOP CHART



M0970105



DRILL STEM TEST REPORTWell: East Mereenie 4 Elevation K.B.: 2368' G.L.: 2352' Date: 28th May, 1967.Test No.: 4 Interval 4587' - 4646' Operator: ExoilTester, Size & Type: 4 1/4" Johnston CO Packer, Size & Type 8 1/2" Open HoleAnchor, Length & O.D.: 59' 6 1/2" Drill Collar Footage above Tester: 346'Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049Pressure (Type: T1 Position: Bottom Tail Pipe (From 4588' To 4605')
Bombs (T1 Above Packer Anchor (Perforations (From - To -)Shut In Tool 1
Disk Valve Position: Above Tester Water Cushion: Nil Mud Wt.: 10.6 Vis: 39Chokes - Top: Nil B.H.: 5/8" Drill pipe, size & Type: 4 1/2 x 16.6Full Hole, Size & Depth: 9 3/8" 4621' Rat Hole, Size & Depth: 8 1/16" 4646'Mud Level, Before Valve Opened: Surface After Valve Opened: SurfaceTime Record: Started In: 1.30 a.m. Set Packer: 3.23 a.m. Valve Opened: 3.29 a.m.Shut In Tool Opened: Final
Disk Broken: 4.05 a.m. Valve Shut In: 11.35 a.m. Pulled Packer: 5.05 p.m. Out of Hole: 2.30 a.m.Nature of Blow: Strong initial blow, remaining steady for most of flow (29th)period, strong fluctuations (surging) for 3 hrs., gradually becoming weaker and remaining steady for last 2 hours of flow period.flow Measuring Method: Pitot tube and manometer through 2" Riser.Time: At approximately 10 minute intervals for first hour of test.Reading: (H₂O) 0.4Rate of Flow: (m.c.f.d.) 88Oil or Water Flow: NilFluid Recovery: 45 barrels free oil; 1 1/2 barrels mud cut oilChart Readings: Time Elapsed, mins: ISI 32 Flowing: 450 FSI 330Pressures: IHP 2586 ISIP 1501* IFP 194 FFP 1174 FSIP 1775 FHP 2586Maximum Temperature: Less than 150°F (Bottom Hole)Samples: 2 jars and 1 tin oil.Remarks: Four minute drawdown on Formation before initial shut in. Both charts identical, readings above from bottom chart. Test mechanically successful.Note:-- I.S.I.P. still building up at end of shut in period. Reverse circulated out recovery after pulling packer (necessary drop 4 go devils before break out plugs in reverse circulating tool broken). Peculiar straight line 60° angle build up in I.S.I.P. may indicate plugging in Formation. Note: Small decrease in flowing pressure immediately after commencement of flowing period. Almost straight line build up in flowing pressure with intervals of surging for 250 mins. Flowing Pressure then levelling off for remainder of flow period (still straight line build up but at lower rate with very little surging). Quick build up of F.S.I.P. (1736 p.s.i. after 20 mins.) indicates fairly good permeability. Formation appears to have low Geologist: D. D. Benbow porosity with reasonable permeability

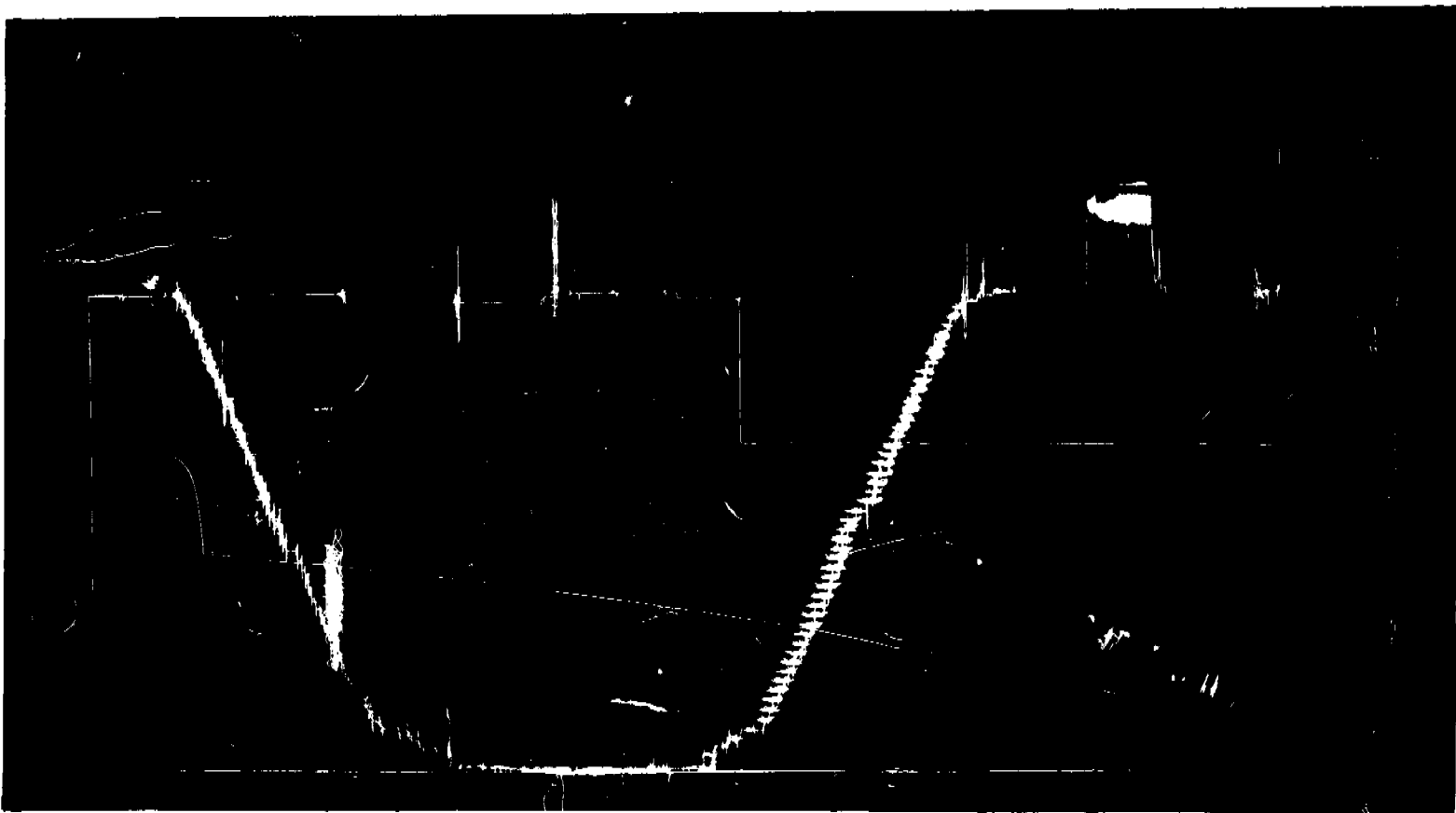
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EAST MERREENIE No. 4 - D. S. T. No. 4

4 5 8 7' - 4 6 4 6' 28. 5. 67 BOTTOM CHART



M0970107

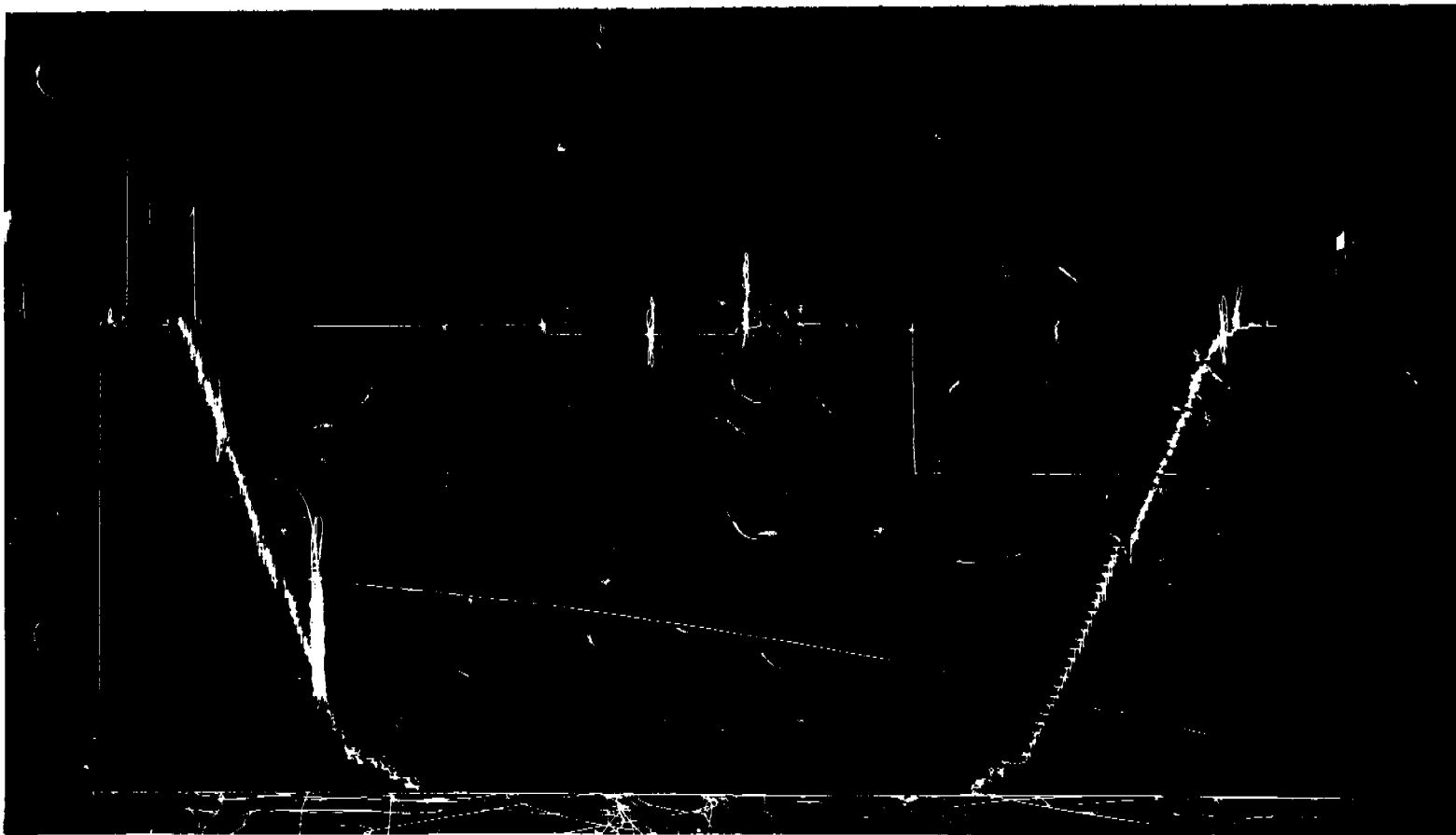


EAST MEREENIE No. 4 - D. S. T. No. 4

4 5 8 7' - 4 6 4 6' 28. 5. 67 TOP CHART



M0970108



EXOIL NO LIABILITY
DRILL STEM TEST REPORT

Form 5
Report No. 6

Well: East Mercene No. 4 Elevation K.B.: 2368' G.L.: 2352' Date: 31st May, 1967.
Test No.: 5 Interval: 4695' - 4760' Operator: Exoil
Tester, Size & Type: 4 1/2" Johnston CO Packer, Size & Type 8 1/2" Open Hole
Anchor, Length & O.D.: 65' 6 1/4" Drill Collar Footage above Tester: 346'
Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure (Type: T1 Position: Bottom Tail Pipe (From 4696' To 4719'
Bombs { Anchor {
(T1 Above Packer Perforations (From - To -

Shut In Tool

~~Disc Valve~~ Position Above Tester Water Cushion: Nil Mud Wt.: 10.7 Vis: 42

Chokes - Top: Nil B.H.: 5" Drill pipe, size & Type: 4 1/2" x 16.6

Full Hole, Size & Depth: 9 1/2" 4700' Rat Hole, Size & Depth: 7 1/8" 4760'

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

Time Record: Started In: 11:45 a.m. Set Packer: 2:12 p.m. Valve Opened: 2:14 p.m.

Shut In Tool Opened Final

~~Disc Valve~~ 2:49 pm ~~Valve~~ Shut In 8:48 pm Pulled Packer: 1:02 am Out of Hole: 4:30 a.m.

Nature of Blow: Strong initial blow, gradually becoming weaker after four hours. Strong fluctuations (surging) during most of flow period, becoming weaker towards end of period.

Gas flow Measuring Method: Pitot tube and manometer through 2" riser.

Time: At approximately 15 minute intervals for first two hours of test.

Reading: ("H₂O) 0.4

Rate of Flow: (m.c.f.d.) 88

Oil or Water Flow: Nil

Fluid Recovery: 36 barrels free oil 2 barrels mud cut oil.

Chart Readings: Time Elapsed, mins: ISI 31 Flowing: 360 FSI 255

Pressures: IHP 2664 ISIP* 1658 IFP 142 FFP 926 FSIP 1775 FHP 2664

Maximum Temperature: Less than 150°F (bottom hole)

Samples: 2 Jars oil

Remarks: Four minute drawdown on formation before initial shut in. Both charts identical, readings above from bottom chart. Test mechanically successful. Note* ISIP still building up at end of shut in period. Reverse circulated out recovery after pulling packer. Gas to surface 5 mins. average flow rate 88 m.c.f.d. Note: small decrease in flowing pressure immediately after commencement of flowing period. Almost straight line build up in flowing pressure with intervals of surging for 240 mins. Flowing pressure then levelling off (still straight line build up but at lower rate and with less surging). Quick build up of FSIP (1697 p.s.i. after 20 mins.) indicates fairly good permeability. Formation appears to have fairly low porosity with reasonable permeability. Oil is 46° A.P.I. gravity (measured with Hydrometer). Recovery indicates flow rate of 151 B.O.P.D.

Geologist: D.D. Benbow



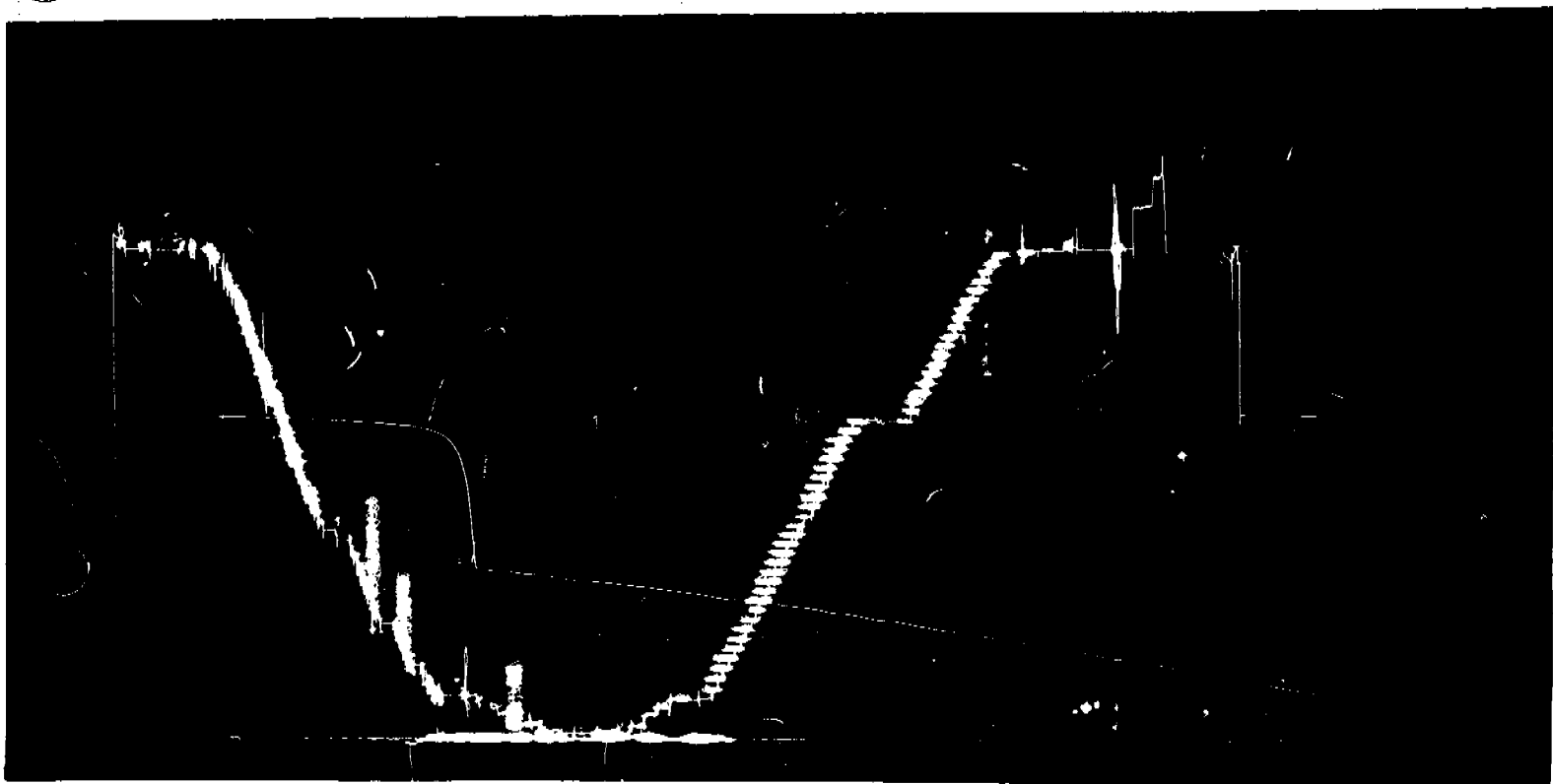
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E A S T M E R E E N I E No. 4 - D. S. T. No. 5

4 6 9 5' - 4 7 6 0' 31. 5. 67 B O T T O M C H A R T



M0970110

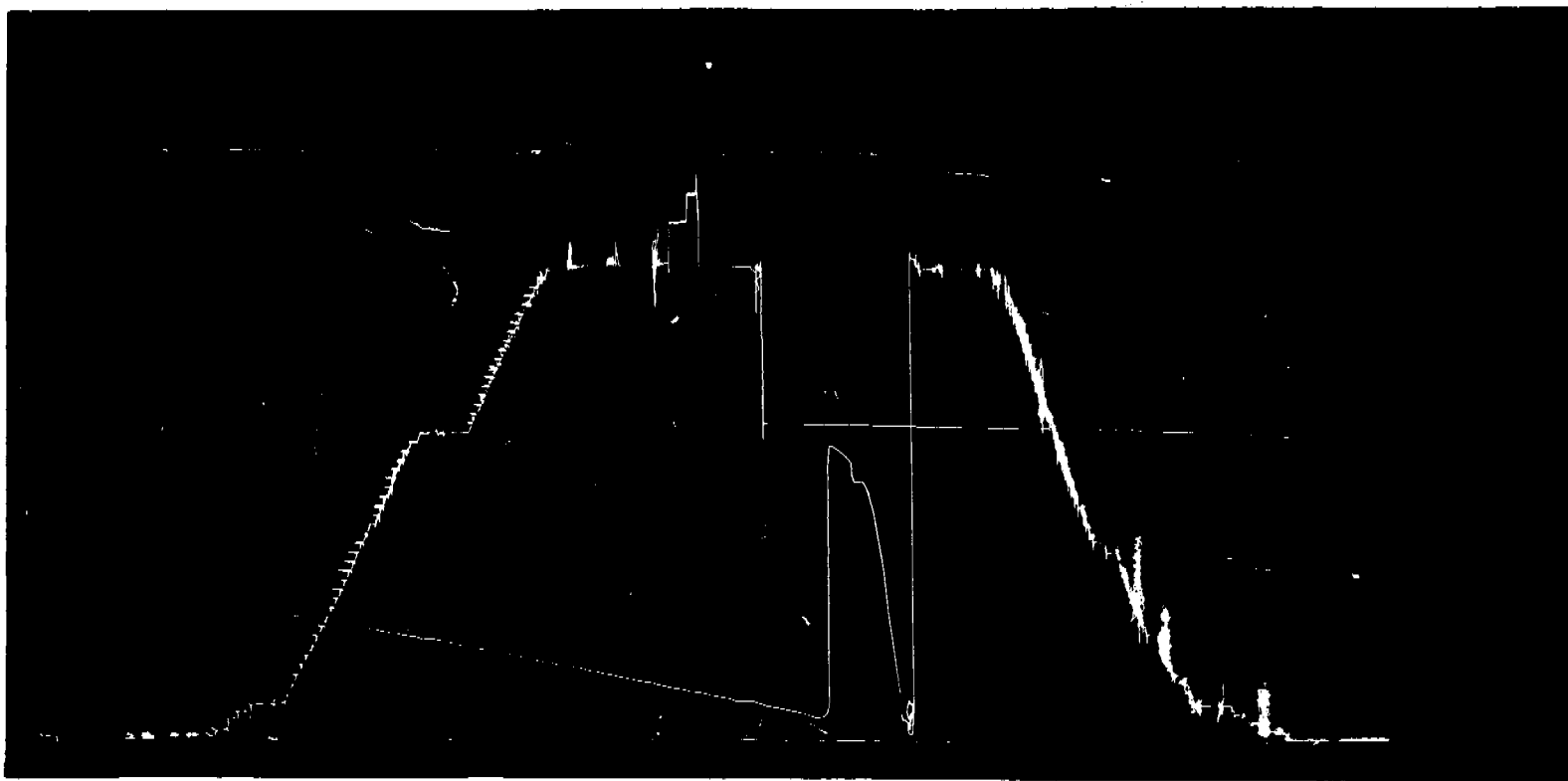


EAST MEREENIE No. 4 - D. S. T. No. 5

4695' - 4760' 31. 5. 67 TOP CHART



M0970111



EXOil NO LIABILITY
DRILL STEM TEST REPORT

Form 5
Report No. 6

Well: East Mereenie Elevation K.B.: 2368' G.L.: 2352' Date: 2nd June, 1967.
Test No.: 6 Interval: 4589'-4761' Operator: Exoil
Tester, Size & Type: 4 3/4" Johnston CO Packer, Size & Type 8 1/2" Open hole.
Anchor, Length & O.D.: 172' 6 1/4" Drill Collar Footage above Tester: 260'
Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure (Type: T1 Position: Bottom Tail Pipe (From 4590' To 4634'
Bombs { T1 Above Packer Anchor {
{ Perforations (From - To -

Shut in tool

~~Disk Valve~~ Position Above tester Water Cushion: Nil Mud Wt.: 10.7 Vis: 41

Chokes - Top: nil B.H.: 5" Drill pipe, size & Type: 4 1/2" X 16.6

Full Hole, Size & Depth: 9 7/8" 4761' Rat Hole, Size & Depth: -

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

Time Record: Started In: 9:45pm Set Packer: 11:47pm Valve Opened: 11:55pm

Shut in tool Opened Final

~~Disk Broken~~ 12:30am Valve Shut: In 12:45pm Pulled Packer: 1:17pm Out of Hole: 4:30pm

Nature of Blow: Strong initial blow, gradually becoming weaker throughout flow period. Surging intermittently throughout flow period weakening towards end of period.

Gas flow Measuring Method: Pitot tube and Manometer through 2" Riser.

Time: At approximate 15 minute intervals for first hour of test.

Reading: ("H₂O") 0.1

Rate of Flow: (m.c.f.d.) 44

Oil or Water Flow: Nil

Fluid Recovery: 45 Barrels free oil 2 barrels mud cut oil.

Chart Readings: Time Elapsed, mins: ISI 30 Flowing: 735 FSI 32

Pressures: IHP 2716 ISIP *665 IFP 207 FFP 1174 FSIP *1697 FHP 2716

Maximum Temperature: 142°F (Bottom hole)

Samples: 2 Jars Oil.

Remarks: Five minute drawdown on formation before initial shut in. Both charts identical, readings above from bottom chart. Test mechanically successful.

Remarks: Note: * I.S.I.P. & F.S.I.P. still building up at end of shut in period. Reverse circulated out recovery after pulling packer. Gas to surface 11 mins. average flow rate 44 m.c.f.d. Almost straight line build up in flowing pressure for 90 mins. Flowing pressure then levelling off (continuing as almost straight line build up but at a lower rate.) Note "S" curve on final shut in pressure. Test indicates either interval has low permeability or formation has been damaged. Difficult reconcile results this test with results D.S.T.'s 4-5 (permeability of combined test is less than either separate test.) Oil has A.P.I. gravity 45°. Recovery indicates flow rate of 91 B.O.P.D.

Geologist: D.D. Benbow



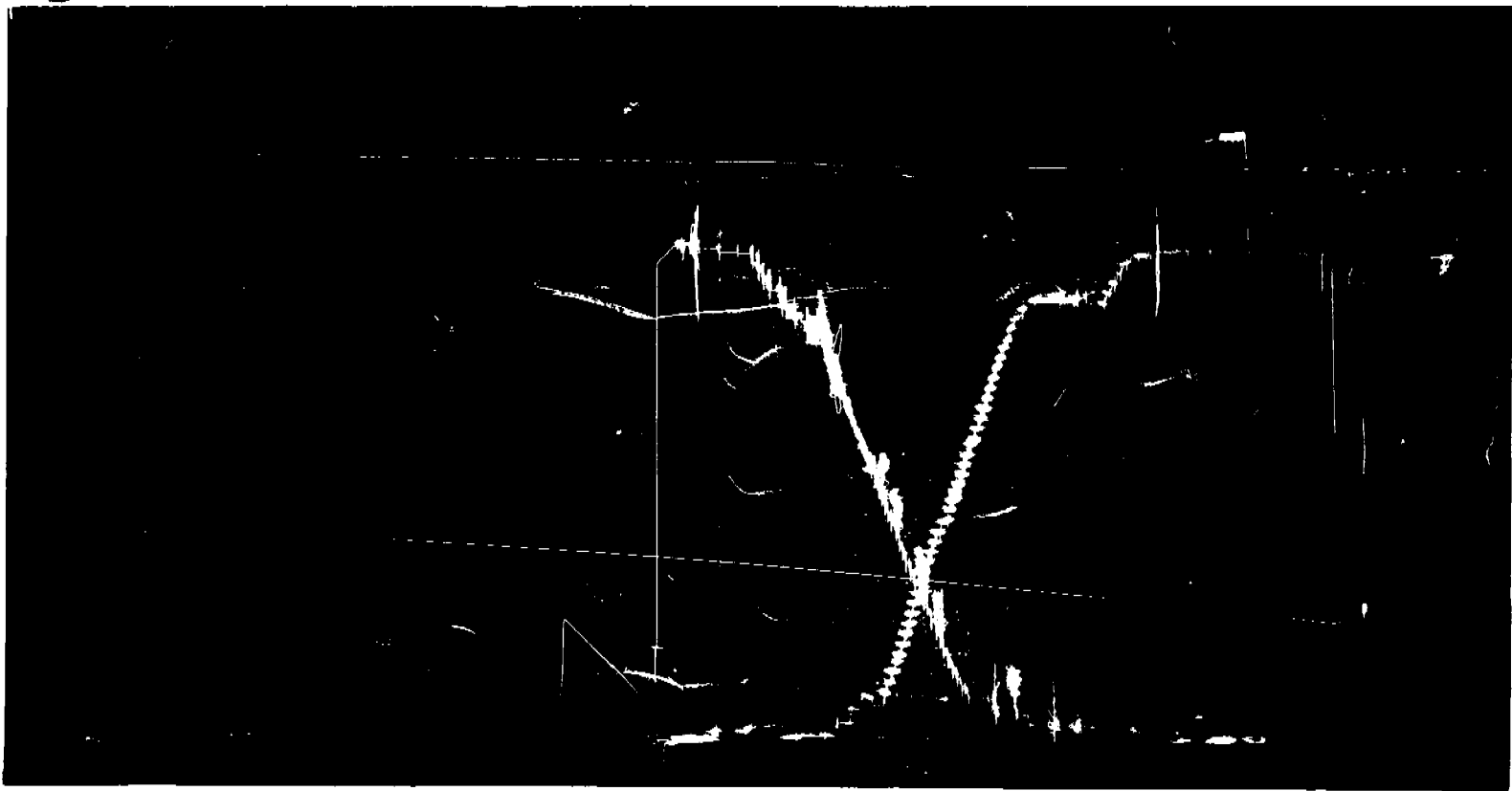
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EAST MERENIE No. 4 - D. S. T. No. 6

4589' - 4761' 2. 6. 67 BOTTOM CHART



M0970113

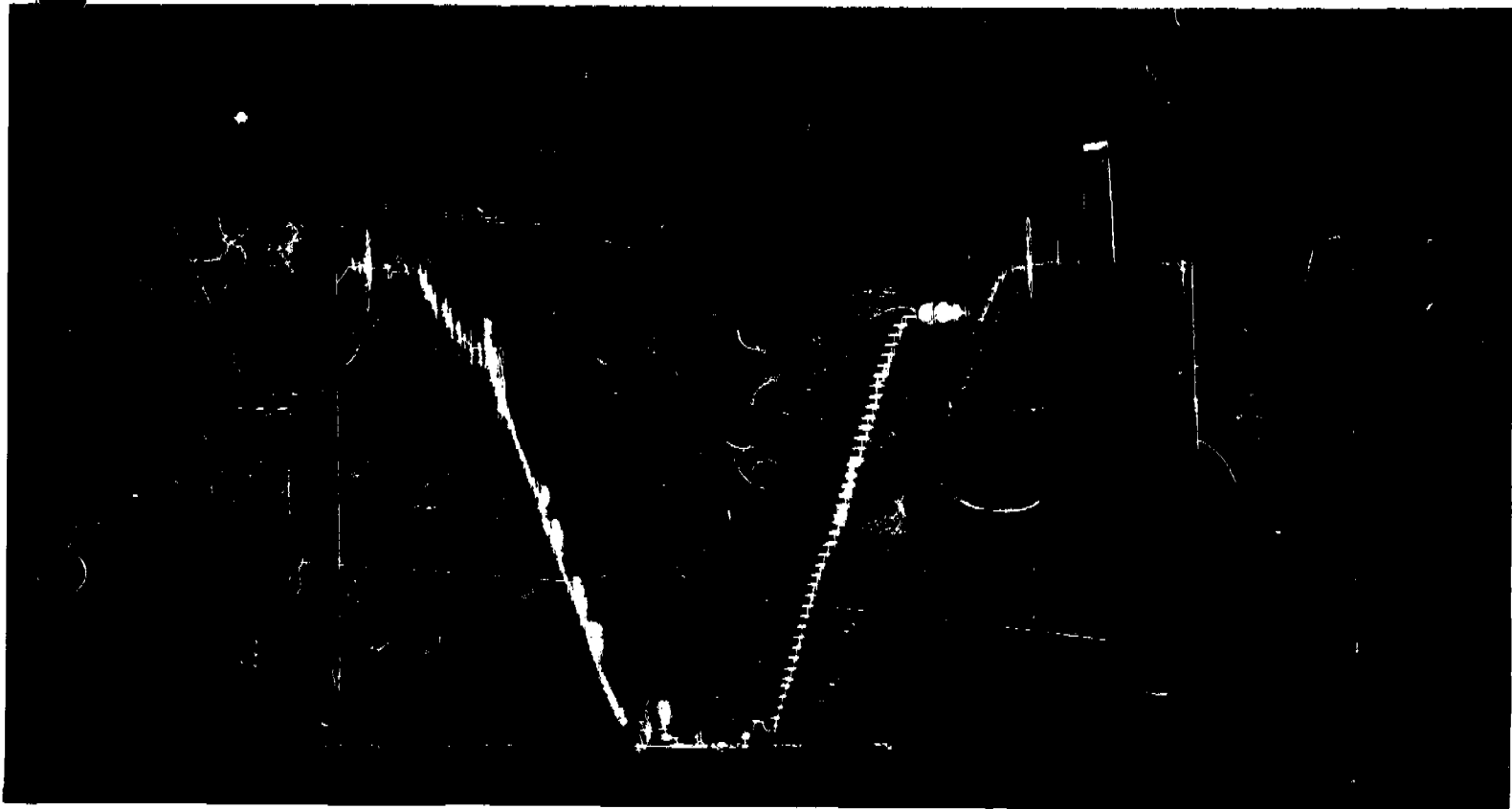


EAST MERREENIE No. 4 - D. S. T. No. 6

4 5 8 9' - 4 7 6 1' 2. 6. 67 TOP CHART



M0970114



DRILL STEM TEST REPORT

Well: East Mereenie No. 4 Elevation K.B.: 2368' G.L.: 2352' Date: 3rd June, 1967.
Test No.: 2 Interval: 4695'-4761' Operator: Exoil
Tester, Size & Type: 4 3/4" Johnston CO Packer, Size & Type 8 1/2" Open Hole
Anchor, Length & O.D.: 66' 6 1/4" Drill Collar Footage above Tester: 346'
Capacity (bbl./foot) - Drill Pipe: 0.0142 Drill Collars: 0.0049

Pressure {Type: T1 Position: Bottom Tail Pipe (From 4696' To 4720'
Bombs { T1 Above Packer Anchor {
Perforations (From - To -

Shut In Tool

~~Disc Valve~~ Position: Above Tester Water Cushion: NIL Mud Wt.: 10.8 Vis: 43

Chokes - Top: NIL B.H.: 5/8" Drill pipe, size & Type: 4 1/2 x 16.6

Full Hole, Size & Depth: 9 7/8" 4761' Rat Hole, Size & Depth: -

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

Time Record: Started In: 5.15 am. Set Packer: 9.14 am. Valve Opened: 9.20 am.

Shut in Tool Opened: Final

~~Disc Valve~~ 10.40 am. ~~Valve~~ Shut In: 11.45 am. Packed Packer: 1.00 pm. Out of Hole: 3.00 pm.

Nature of Blow: Strong Initial blow dying to weak blow after 5 minutes, increasing after 10 minutes to strong blow at end of drawdown (21 mins.) Strong initial blow at beginning of flow period, becoming weaker after 10 mins. Weak flow for remainder of flow period.

Gas flow Measuring Method: Gas to Surface at beginning of Flow Period. Too small to measure.

Time: -

Reading: -

Rate of Flow: -

Oil or Water Flow: NIL

Fluid Recovery: 300' Oil Cut Mud.

Chart Readings: Time Elapsed, mins: ISI 59 Flowing: 65 FSI 75

Pressures: IHP 2716 ISIP* 455 IFP 116 FFP 142 FSIP* 834 FHP 2716

Maximum Temperature: Less than 150°F (Bottom Hole.)

Samples: NIL

Remarks: 21 minute drawdown on Formation before Initial Shut In. (Flowing Pressures during drawdown Initial 63 final 89). Both Charts identical, readings above from bottom chart. Note. *I.S.I.P. & F.S.I.P. still building up at end of Shut In Periods. Fill inside of Drill Pipe with water before hoisting test. Gas to surface at beginning of flow period T.S.T.M. Gas flow surging intermittently throughout flow period (weak surges). Pressures indicate formation to be tight (little Permeability). Test Run as re-evaluation of Interval tested on D.S.T. No.5 - Formation appears to have been partially plugged off between tests. (Probably Drilling mud has plugged off Formation). Test mechanically successful.

Geologist: D. D. BENBOW



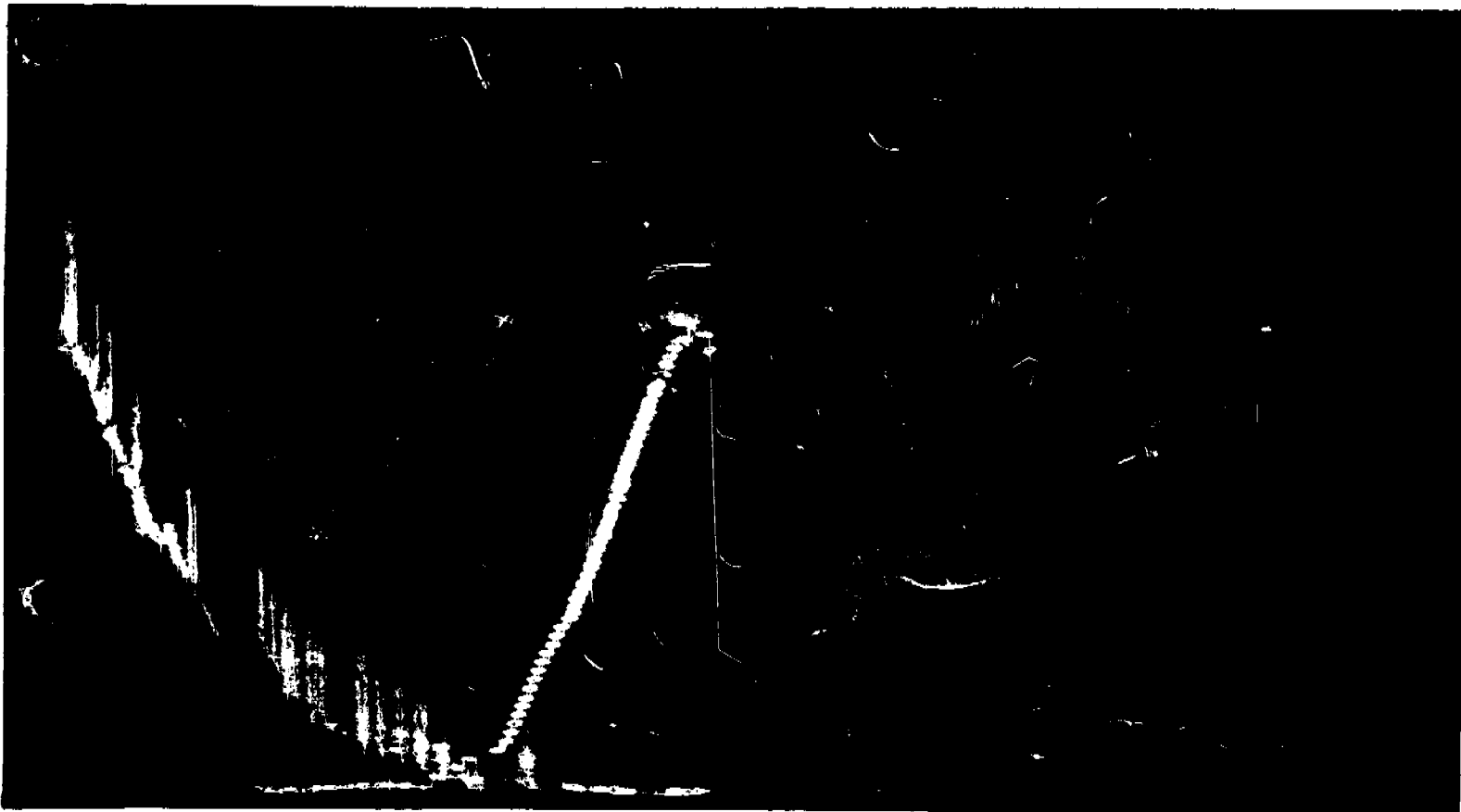
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EAST MEREEENIE No. 4 - D. S. T. No. 7

4695' - 4761' 3. 6. 67 BOTTOM CHART



M0970116



EAST MEREEENIE No. 4 - D. S. T. No. 7

4695' - 4761' 3.6.67 TOP CHART



M0970117

