

Completion Letter:  
Cards:



CODE: RM65-PEX23 (formerly DR64-EX8)  
COUNTY: San Juan  
OBJECTIVE: 7800' Mississippian  
FIELD: *Jable Mesa (?)*  
ELEVATION: *5325 D.F.*

WELL NAME: SDX #1 Navajo Table Mesa

LOCATION: 790' FSL, 1850' FWL, Section 27, T-28-N, R-17-W

SPUD: 7/15/65 COMPLETE: \_\_\_\_\_ TOTAL DEPTH: \_\_\_\_\_

CASING: 13 3/8 @ 247' w/275 sx; 8 5/8 @ 4983' w/300;

PAY: \_\_\_\_\_ T/PAY: \_\_\_\_\_  
IP \_\_\_\_\_ CHOKE \_\_\_\_\_  
GRAVITY \_\_\_\_\_ GOR \_\_\_\_\_  
CP \_\_\_\_\_ TP \_\_\_\_\_

PERFORATIONS: \_\_\_\_\_

TREATMENT \_\_\_\_\_

GEOLOGIST Louis C. LeRoy PH

CONTRACTOR Loffland PH

PUSHER \_\_\_\_\_ PH

SDX INTEREST \_\_\_\_\_

REPORT TO DAILY: Dan Am, etc.

TOPS	LOG	SAMPLE
<i>De Chelly</i>	<i>4320</i>	
<i>Organ Rock</i>	<i>4892</i>	
<i>Hermosa</i>	<i>6180</i>	
<i>Breda</i>	<i>6795</i>	
<i>San Juan</i>	<i>6828</i>	
<i>Paria ls.</i>	<i>6862</i>	
<i>Shoshone</i>	<i>7130</i>	
<i>Jable Mesa</i>	<i>7250</i>	

TESTS AND/OR CORES: Cen. #1: 7100-60;  
Cen. #2: 7240-86;

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DAILY DRILLING REPORT

RECEIVED

SEP 7 1965

U. S. GEOLOGICAL SURVEY  
F. RMINGTON, N. M.

7/12 Staked location.

7/15 Loffland Drlg. Co MIR.

7/16 Spud 12 1/4" hole at 11 PM 7/15/65. Now drlg. 200'. Bit #1. 0° at 60'. 1/4° at 120'.

7/17 Drill & ream surface 257'. Bit #1. Formation sand. 1/4° at 210'. Ran 8 joints 13 3/8" OD H-40. 48# to CP 247'. Cemented w/275 sx reg w/2% CaCl. Circ. approx 50 sx to pit. Now WOC. PD 6:55 PM 7/16/65.

7/18 WOC 18 hrs. Drlg. 1077' sand & shale. Bit #3. 1/4° at 551'.

7/19 Drlg. 2115' sand & shale. Bit #5. Native mud mud wt. 9.0#, visc. 30, 1/2° at 1050, 3/4° at 1439, 3/4° at 1712. 1790' water flow in Morrison.

7/20 Drlg. 3051 sand & shale. 3/4° at 2780'. Bit #5. 836' progress.

7/21 Drlg. 3760' lime & shale. Bit #7. 709' progress. 1° at 3651'.

7/22 Drlg. 4267' sand & shale. Bit #8. 507' progress. 1° at 4260'. MW 10.6, Visc. 44, killing water flow this AM.

7/23 Trip at 4882' sand & shale. Bit #9. 615' progress. 1 3/4° at 4750'. MW 10.6, Visc. 47, WL 10.0,

- 7/24 Trip at 5000'. Bit #11, lime & sand. 118' progress. 1 3/4° at 4990'. MW 11, Visc. 48, WL 10, Prep to run 8 5/8" casing.
- 7/25 Ran 163 joints of 24#, 32# and 36# H-40 and J-55 8 5/8" casing to CP 4983'. Cemented w/300 sx pozmix w/2% gel and 12 1/2# gilsonite per sack + 100 sx pozmix tail in. PD 3:30 PM 7/24/65. TOC by survey 3190'.
- 7/26 WOC 18 hrs. Nipple up BOP and testing casing to 1000# for 30" OK. Drill cement and shoe. Drilling at 5086' shale and sand. Bit #12. 86' progress. 2° at 4990'. MW 9.1, Visc. 41, WL 14.8.
- 7/27 Drlg. 5275' shale. Bit #13. 189' progress. 2 1/4° at 5232'. MW 9.2, visc. 45. WL 17.
- 7/28 Trip at 5535', sand & shale. Bit #15. 260' progress. 2° at 5535'. MW 9#. Visc. 40, WL 15.
- 7/29 Trip at 5750' lime & shale. Bit #17. 215' progress. 1° at 5750'. MW 9.9, Visc. 41, WL 20. Saltwater flow approximately 5500'.
- 7/30 Drlg. 5942' sand & shale. Bit #19. 192' progress. 1° at 5900'. MW 9.7, Visc. 46, WL 25.
- 7/31 Drlg. 6117', Bit #22, 175' progress. 1° at 6080'. MW 9.7, Visc 45, WL 20.
- 8/1 Trip at 6289' sand & shale. Bit #23. 1° at 6080'. MW 9.9, Visc. 41. Lost approx. 300 bbls mud at 6250'. Mixed mud w/fiber and regained full returns.
- 8/2 Trip at 6424' sand & shale. Bit #24, 135' progress. 1° at 6424'. MW 9, Visc 41, Lost circulation approx 20%. Lost full returns at 6295'. approx 450 bbls mud. Regained to 6350'. Lost returns again. Lost 400 bbls mud. Regained returns.
- 8/3 Drlg. 6576' lime & shale. Bit #25. 102' progress. 1° at 6520'. MW 9.6, Visc. 50, WL 15.6. Lost circulation 6480'. Lost approx. 150 bbls. Causing approx. 1590 LCM.
- 8/4 Depth 6623'. Prep to repair protective 8 5/8" casing. Bit #27. 47' progress. lime & shale. MW 9.2, Visc. 41, WL 15. Broke circl. out Bradenhead after trip at 6623'. Pump 8 5/8" rubber plug down, plug stopped at 4718 by wire lime measurement. Prep to cement.
- 8/5 TD 6623'. Repairing leak in 8 5/8" protective casing at approx 4718'. Ran Baker FB on DP. Set pkr at 4600'. Hold 1000# press. above pkr, pump 200 sx reg. cmt w/2% CaCl. Displaced below pkr. 300# to 500#. WOC 8 hrs. Drill cmt 4625-80. Pump out at 200#. Prep to re-cement.
- 8/6 Ran FB to 4600' on DP. Squeeze w/200 sx Class "C" cmt w/2% CaCl from 800-2100#. FSIP 1800#. Displaced cmt to calculated 4650'. WOC 12 hrs. Ran Bit. Found top of cmt stringers at 4365', top of solid cement 4664'. Drill to 4704'. Test 1000# OK. Drill to 4713'. Press to 1000#. Bled to 775# in 40". Drill 1 hr on rubber plug. Did not get through. Open Bradenhead still have water flow. A small back flow through 8 5/8".

- 8/7 Ran 7" magnet to 4713'. Rec a few bit teeth. 6" bit ran on 4 3/4 DC to 4713'. Dressed off top of csg & got into pipe. Ran bit to 4725'. Bit will go into csg by setting down & rolling off. Pulled bit. WO 7 3/4 csg roller this AM.
- 8/8 & 8/9 Ran 7 3/4 Eastman csg roller to 4713'. Roll out top of 8 5/8" csg. Roller go in and out of csg free. Pull roller. Ran 7 3/4 bit. Set on top of csg at 4713'. Unable to get bit into pipe. Pull bit. Ran 7 3/4 Clustrite tapered mill. Dress top of csg at 4713'. Mill go in and out csg free. Went in hole w/7 3/4 bit. Could not get into pipe. Ran 6" bit on 4 3/4 DC. Roll off top csg at 4713'. Circ. down to 4735' free. Drill to 4770', good cmt, pull out of hole. Ran Lane Wells E gun (4") & collar locator. Gun would stop on top of csg but could work & get into lower part of csg. Check wire line TD 4769'. Check collars. 4746 next collar 4715'. Then went into pipe at 4699'. Csg parted approx 16'. Set gun back on top of csg. Could not get back inside lower pipe. Pull Gun out of hole. Ran 8 5/8" releasing spear on DP. Fish csg at 4715'. Could pick up approx 14'. Pipe would work free the 14'. Set back on bottom. Released spear. Pull out hole. Ran 6" bit. Now drlg cmt out of csg at 4801'. Solid cmt from 4769-4801'. 9 jts. 36# 8 5/8" csg off bottom of string. Will drill out cmt. Pick up 9jts csg & cmt.
- 8/10 Finish drlg cmt from ~~481~~ 4801 to 5060', still in cmt. Pull out. Went in hole w/Bakcer Retrievable cementer w/float valve on bottom & shear type circ. sleeve on top. Set in csg at 4739'. Put 10 centralizers on DP above cementer. Could not pick up csg w/FB. Broke circ. Still could not pick up csg. Turned FB loose. Pick tp to 4650'. Re-set FB pressure up. Had good circ. Pkr apparently leaking. Pull pkr out of hole. Circ sleeve was leaking. Ran back in w/csg spear. Picked up 8 5/8 w/40,000#. Could only work about 4'. Set down. Pull spear out of hole. Ran FB back with all centralizers, etc. Pick csg up 4" w/FB. Broke circ around - pick up total 12'. Cemented w/100 sx reg. cmt. Good circ. Left 50' cmt inside 8 5/8 csg. Now holding & circ. above pkr. WOC.
- 8/11 TD 6623'. Repairing csg at 4713'. WOC 12 hrs. on cmt job. Unset FB pkr. Would go down hole. Would hang up coming up hole. Work pkr free. Pull out hole. Top slips gone off pkr. Started in hole w/bit and rig broke down. Repairing rig.
- 8/12 Ran 7 3/4 bit w/bit guide into hole. Set down on csg at 4713'. Would not go. Went back in hole w/swedge & grant under reamer. Went through top of csg at 4713'. Pick up and set reamer in top. Roll out csg. Ran 7 3/4 bit to 4735'. Start drlg cmt now at 4755'.
- 8/13 TD 6623'. Bit #27. drill out cmt 4755' to 4820'. Found pkr slips. Ran magnet 4 times. Rec. 7 slips. Went in hole w/7 3/4 bit. No trouble getting through pipe. Drill cmt 4820-5530'. Went out of cmt. Circ. down to 4920'. Displaced water. Mudding up to drill ahead.
- 8/14 TD 6623'. Prep to drill ahead. Displaced water from hole w/mud at 5920'. Mixed new system of mud. Visc. 46. MW 9.4, WL 10. Approx 10% L.C.M. Circ. & chase plug from 5920-6623'. Lost 200 bbls mud at 6623'. Circ & condition mud bring L. C. M. to 20%. Regained full circ. Pulled bit. Ran magnet basket.. Rec. 3/4 of pkr slip. Now prep to drill ahead.
- 8/15 Drlg. 6725' sand & shale. Bit #31. 102' progress. 2° at 6680'. MW 9.8, Visc. 44, WL 6.6.

- 8/16 Drlg 6865' shale & sand w/trace of lime. Bit #32. 140' progress. 1° at 6800'. MW 9.8, Visc. 45, WL 5, Rec. 2 small pieces of iron in junk basket last trip.
- 8/17 Trip at 6949' sand and shale w/trace lime. Bit #34. 84' progress. 1 1/2° at 6913'. MW 10#, Visc. 45, WL 8.2, Lost approx 75 bbls mud 6925-6940'.
- 8/18 Drlg. 7037' sand, shale & trace lime. Bit #35. 88' progress. 1 1/2° at 6913'. MW 10.2, Visc. 49, WL 4. Lost approx 300 bbls mud from 6969 to 7007'. Slow seep. Now gaining volume mixing mud.
- 8/19 Coring. CORE #1 at 7112 (12 to 15 min/ft.) w/6 3/4 core head. Pulled bit #5 at 7100'. Drilled 63'. Cored 12'. Total progress 75'. Lime w/trace of chert. MW 10.2, Visc. 50, WL 6 cc. Lost approx 200 bbls mud from 7040-7100'. Steady seep, not losing in coring.
- 8/20 Drlg. 7205' sand, shale & lime. 1 1/2° at 6913'. MW 10.2, Visc. 53, WL 4.2. Lost 50 bbls mud at 7169'. Gained full returns immediately. CORE #1: Cut 60' in Hogback zone of Paradox from 7100-7160'. Coring time broke from 15"/ft to 4 1/2-6"/ft from 7138-54'. Gas reading while coring on mud logger - 45 units on hot wire, 76 units Methane, 12 unite ethane, 8 units Propane, and 4 units Butane. Core Des:
- 7100-7116' - Hard dense lime w/shale streaks
  - 7116-7140' - Hard dense lime
  - 7140-7156' - Porous lime fractures & bleeding oil
  - 7156-7160' - Hard dense lime
- Ream core hole from 7100-7160' and drill ahead. Drilling break 7188-7193 from 10" to 5"/ft.
- 8/21 Coring Core #2 at 7279'. Drilled to 7240'. Put core bbls in hole. Total progress 74' in sand. 1 1/4° at 7090'. MW 10.2, Visc. 53, WL 8. Core #2 start 7240'. Have cut 39', still cutting core.
- 8/22 CORE #2: 7240-7286': Cut 46', rec 46' in Paradox.
- 7240-44' - Dense lime w/thin shale streaks
  - 7244-49' - Shale w/thin lime streaks
  - 7249-60' - Dense fine crys lime w/scatt shale. NS.
  - 7260-67' - Dense fine crys lime w/thin shale streaks
  - 7267-68' - Broken shale
  - 7268-71' - Lime w/shale very broken
  - 7271-86' - Porous, vugular, coarse crys lime, bleeding gas throughout, slight odor & flour.
- Went back in hole w/7 3/4 bit and guide set down on parted csg at 4713'. Could not get through. Pull out hole & ran 7 3/4 tapered mill, set down at 4713'. Acted like getting out of pipe. Pulled mill. Ran 1 jt 2 7/8 DP on bottom of 4 1/2 DP. Went in open ended to see if could get in csg. 2 3/8 set down at 4713'. Rolled off & 2 7/8 went on down to 4803' free. Pull out of hole. Ran 7 3/4 mill again. Acted like getting out of pipe. Pulled mill.
- 8/23 Drlg. 7325', Bit #37. 39' progress. MW 10.3, Visc. 51, WL 8 cc. Still in porosity. Drlg at 4-5"/ft. Still fluorescence in samples. Went in hole w/7 1/2 string mill. Built up to 7 3/4 spiral clustrite ribs. 1 jt 2 7/8 on bottom for guide. Swage started to work at 4713'. Milled to 4717'. Mill went free. Pulled out of hole & ran 7 3/4 bit, went into csg, reamed core hole 7240=286' and now drlg ahead.

8/24 Trip at 7399'. Bit #38, 74' progress. Sand & lime. 1 1/2° at 7398'. Lost full returns at 7378'. Used 600 bbls mud. Regained circ. Drill to 7398'. Lost all returns. Used 900 bbls mud. Unable to regain circ. Mix 80 bbls salt gel plug spot on bottom. Pull up 1000'. Regain circ. Making trip.

8/25 TD 7399'. No progress. Condition mud. Ran DP on to 7200'. Circ. & condition mud. MW 9.8, Visc. 51. Well circ. pretty good. Well started kicking. Making quite a bit of gas. Put mud through kill line into tank, making approx 5% oil. Kicked for 4 1/2 hrs. Worked gas out of mud. Had full returns. Circ. again. Lost circ. again. Mixed 80 bbls salt gel plug spotted on bottom. Pull DP up to 5000'. Fluid down approx 30 bbls in DP. Mixed more mud. MW 9.8, Holding well circulating at 5000'. Ran pipe back, set down on bridge at 7160'. Pick up attempt to break circ. Could get only approx 1/3 returns. Now pulling back up to 5000. Will start down 1 stand at time circulating hole.

8/26 TD 7399'. Pulled to 5000' and mix approx 350 bbls mud. Ran 5 stands & attempt to break circ. Would not circ. but hole will stand full. Well has been static since yesterday morn. Mix more mud & went on down to bridge at 7160'. Circ. through bridge - no returns. Set down on 2nd bridge at 7242'. While circ through bridge, ran out of mud. Pulled 10 stands and now mixing mud. Csg. is on location.

8/27 TD 7399'. Mix pit of mud. Ran back to bridge, 7242'. Tried to work through bridge, ran out of mud. Pull out of hole. Schlumberger ran GR-N, I-Es, & Sonic log to wire line TD 7248'. Tops:

De Chelly	4320'	Ismay	6828'
Organ Rock	4892'	Paradox Ls.	6862'
Hermosa	6180'	Hogback	7130'
Paradox	6795'	Table Mesa	7250'

Going in hole to log down DP.

8/28 TD 7399;. Went in hole to Bridge 7242'. Try to drill out. Could not. Lay down DP. Rig run 224 jts 5 1/2" 14, 15.50, 17# csg to csg pt 7256'. Cemented Halliburton packer shoe & Baker metal Petal Baskets. 120' apart from bottom up. 6 centralizers, 90' apart, & 1 baffel collar. Cemented w/250 sx Incor poz, 12 1/2# gilsonite per sx & 100 sx incor neat around shoe. PD 10 PM 8/27/65. WOC.

8/29 WOC 12 hrs. Ran temperature survey. Top of cement 6400'. WOC total 25 hrs. Pick up 2 7-8 DP.

8/30 Finish picking up 2 7/8 DP with 4 3/4 bit with 15-3 1/2" DC. Hit top of cement at 7218'. Drill cmt & shoe at 7256' w/water. Well started unloading. ~~Shut~~ Shut rams. Let well unload water to pit & clean up. Flow to pit approx 3 hrs. Hook well up to test separator & tank. Well flow 120 B of 39° API oil and 50 BLW in 5 1/2 hrs on 24/64" ck. Flowing press on csg 900#. Gas meas. 951 MCFPD rate. SIP 1150#. Kill well with 9.5# mud, visc. 45, WL 6. Build mud vol & condition mud. Clean out 7 3/4 hole to TD 7399'. Now conditioning hole.

8/31 Drill from 7399 to 7411 with 4 3/4" bit. Circ. hole clean. Condition mud. WM 9.8, Visc. 45, WL 6. Pull out hole to log. Schlumberger rantool to 6000'. Well started unloading. Pull tool out. Close blind rams. 300# on surface. Build to 1200#. RU Lane Wells. Run Baker Model "D" production pkr w/flapper valve in place. Set at 7200'. Bled well pressure off. Went in hole with 2 7/8 DP & 4 3/4 bit. Conditioning hole.