

DAILY DRILLING REPORT

Prospect Name: Pajarito

Well Name: Navajo Tract 20 - #31-31

Location: 660' FNL 1980' FEL - Section 31, T 29 N - R 17 W
San Juan County, New Mexico

Well Type: Wildcat Development Field Extension Other

Objective Zones: Pennsylvanian Paradox Formation

Projected Depth: 7300' Elevations: 5179' GL 5195' KB

Contractor: Loffland Bros. Company - Rig #211

Spud: 1:00 a.m. 3/1/80 Completed: _____ Status: _____

DATE	DEPTH	DETAILS
2/05/80		Preparing access road and location.
2/08/80		Access road and location complete. Waiting on rotary tools. Expect to begin move in Monday, February 11.
2/14/80		Moving in rotary tools. Prep to begin rigging up tomorrow a.m.
2/15/80		Shut down due to inclement weather.
2/19/80		Waiting on remainder of rig to be moved from previous location.
2/21/80		Moving in 9 5/8" surface casing. Remainder of rig not yet moved from previous location due to rain and mud.
2/25/80		Expect to begin moving remainder of rig this p.m.
2/26/80		Moving remainder of rig from previous location. Expect to begin rigging up tomorrow a.m.
2/27/80		Rigging up rotary tools.
2/28/80		Rigging up rotary tools.
2/29/80		Rigging up rotary tools. Expect to spud conductor hole this p.m.
3/01/80	77'	Drilling. Spudded 17 1/2" conductor hole at 1:00 a.m. 3/1/80. Report time is 6:00 a.m.
3/02/80	223'	Prep to run 13 3/8" conductor casing. Made 146 feet.
3/03/80	223'	Nippling up BOP. Ran 5 jts. 13 3/8" 48 # H-40 ST&C casing. Set at 202' KB. Rigged up Dowell. Cmt'd. w/220 sx C1 B + 2% CaCl. Cement circulated. WOC. Cut off csg. and nipped up Hydril and choke lines. Expect to begin drilling at 7:00 a.m.
3/04/80	1235'	Drilling. Hrs.: Drlg.- 18 3/4, Drlg. 76' cement - 1 1/2, Survey - 1, Trips - 1/2, Finish Nipple up - 1, Clean shale from flowline - 1 1/4. Bit #2- 12 1/4" DSJ w/3-15's, made 1032 feet in 18 3/4 hrs. Surveys: 3/4" @ 537', 3/4" @ 1009'. Mud Properties: MW 8.7, Vis. 28. Drlg.Data: Pump #1 - 12" liners. WOB 35-40000, Rot. Spd. 65, Pump Press. 1200 psig @ 61 SPM.
3/05/80	1775'	Drilling. Hrs.: Drlg.- 14 3/4, Survey - 1 1/2, Trip - 5 1/2, Clean Pit- 3/4, Wash & Ream - 3/4 hrs, Circ. 3/4. Bit #3- 12 1/4" F2 w/2-15's & 1-16, made 540 feet in 14 3/4 hrs. Survey: 1 1/4" @ 1600'. Mud Properties: MW 8.5, Vis. 27, Chromates 500 ppm. Drlg. Data: Pump #1. WOB 35-40000, Rot.Spd. 61, Pump Press. 1200 psig @ 58 SPM. Details: Had first water flow @ 1600' (2" str.). Sample Tops: Gallup 500 (+4695) (not lagged) Greenhorn 1235 (+3960) Dakota 1323 (+3872) 19' high to #22-31.
3/06/80	2570'	Tripping to run 9 5/8" casing. Made 795 feet. Hrs.: 20 1/4 hrs.- Drlg., 3/4 - Survey, 1 3/4 - Start Trip, 1/4 - Rig Serv., 1 - Circ. out sweep. Bit #3- 12 1/4" F2 made 1335 feet in 35 1/4 hrs. Survey: 1" @ 2007'. Mud Properties: MW 8.7, Vis. 27, Chromates 300 ppm. Drlg. Data: Pump-Same, WOB 40,000, Rot. Spd. 61.
3/07/80	2570'	Nippling up BOP stack. Hrs.: 2 - Repair Tongs, 6 - Run csg. & cmt., 1 - Circ. & WTB, 9 - WOC and 1"/220'/150 sx, 6 - Cut off and weld on head. Details: Ran 56 jts. 36# 9 5/8" K-55 ST&C casing. Set at 2569' KB. Rigged up Dowell. Cmt'd. w/ 500 sx 65/35 Poz w/ 6% Gel containing Gilsonite, Cello-Flakes, and 2% CaCl. Yield = 1.98 cuft/sx followed by 200 sx C1 B + 2% CaCl. Yield = 1.18 cuft/sx. Cement did not circulate. Ran 220' 1" line pipe for top outside cement job.

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 Location: 660' FNL 1980' FEL - Section 31, T 29 N - R 17 W
San Juan County, New Mexico
 Well Type: Wildcat Development Field Extension Other
 Objective Zones: Pennsylvanian Paradox Formation
 Projected Depth: 7300' Elevations: 5179' GL 5195' KB
 Contractor: Loffland Bros. Company - Rig #211
 Spud: 1:00 a.m. 3/1/80 Completed: _____ Status: _____

DATE	DEPTH	DETAILS
3/07/80	2570'	Continued- Mixed and pumped 150 sx Cl B + 2% CaCl (Yield = 1.18) down 1". Cmt. circ. to surface. WOC. Cut off casing and installed 10" - 900 x 9 5/8" SOW casinghead.
3/08/80	2570'	Drilling cement @ 2565'. Hrs.: 13- Nipple up, 1 1/2- LD 15-8" DC's, 4 1/2 - PU 24-6 1/2" DC's, 2- Trip, 1/2 - Test Blind Rams to 1500 psig, held okay, 1- Test BOP, Pipe Rams, Hydril, Choke Manifold, and lines, held okay, 1 1/2 - Drlg. Cmt. (Started @ 2460'). Bit #4- 8 3/4" DTT w/ 3-11's. Drlg. Assembly: 727' 6 1/2" DC's, Ttl. Wt. 65000#'s. Pump #1- 5 1/2" liner, Pump Press. 1400 psig @ 62 SPM. WOB 5000, Rot. Spd. 42.
3/09/80	3148'	Tripping for new bit. Made 578 feet. Hrs.: 20 1/4 - Drlg., 1 3/4 - Survey, 1 1/2- Trip, 1/4 - Repairs, 1/4 - Service. Survey: 3/4° @ 3001'. Mud Properties: MW 8.7, Vis. 27. Details: Water Flow approx. 3100' (1 1/2" - 2" str.).
3/10/80	3630'	Drilling. Made 482 feet. Hrs.: 18 1/4 - Drlg., 3/4 - Survey, 4 3/4 - Trip, 1/4 - WTB (3110-3148). Bit #4- out at 3148' made 578 feet in 20 1/4 hrs. Bit #5- F2 made 482 feet in 18 1/4 hrs. Surveys: 1/4° @ 3148' 3/4° @ 3497'. Mud Properties: MW 8.6, Vis. 27. Drlg. Data: Pump #1 - 5 1/2" liner, Pump Press. 1400 psig @ 62 SPM. WOB 40000 #'s, Rot. Spd. 64.
3/11/80	4144'	Mixing mud. Made 514 feet. Hrs.: 15 1/2 - Drlg., 1- Survey, 7 1/2- Work pipe, wash & ream, and mix mud. Bit #5- 8 3/4" Smith F2 in at 3148' made 996 feet in 33 3/4 hrs. Survey: 0° @ 4030'. Mud Properties: MW 9.2, Vis. 32. Drlg. Data: Pump #1 - Same. WOB 40000, Rot. Spd. 64.
3/12/80	4144'	Circulating to bottom. Hrs.: 24- Mud up and circ. to btm. Bit now @ 4124'. Mud Properties: MW 9.5, Vis 49, Fl 12, FC 2/32, Ph 11, Salinity 60000, PV 19, Yield 10, Gels Init. 1, Gels 10 Min. 4, Solids 4.5%, Sand 1/2%. Drlg. Data: Pump #1- 5 1/2" liner, Pump Press. 1300 psig @ 60 SPM.
3/13/80	4144'	Circulating and working to bottom @ 4120'. Hrs.: 24- Circ. & working to btm. Pulled F-2 and ran 8 3/4" OWV to clean up hole. Mud Properties: MW 9.5, Vis 44, Fl 8.0. Drlg. Data: Pump #2- 5" liner. Pump Press. 1050 psig.
3/14/80	4223'	Drilling. Made 79 feet. Hrs.: 6 3/4- Drlg., 17 1/4 hrs. - Circ. & washing to btm. Bit #6- 8 3/4" V2HJ w/3-12's, made 79 feet in 6 3/4 hrs. Mud Properties: MW 9.6+, Vis. 80, Fl 6.4, FC 2/32, Ph 11.5, Salinity 53000, PV 31, Yield 29, Solids 6%, Sand 1/2%. Drlg. Data: Pump #1- 5 1/2" liner. Pump Press. 1350 psig @ 63 SPM. WOB 50,000, Rot. Spd. 64.
3/15/80	4698'	Drilling. Made 475 feet. Hrs.: 15-Drlg., 5-Trips, 1/2- Survey, 1/2- Rig Service, 1/2- Jet Pit, 2 1/2- Wash 4175-4408. Bit #6- 8 3/4" V2HJ in at 4144' out at 4408' made 264 feet in 15 3/4 hrs. Bit #7- 8 3/4" Smith F3 in at 4408' made 290 feet in 6 hrs. Survey: 1 1/2° @ 4408' Mud Properties: MW 9.5, Vis 82, Fl 8.8, FC 2/32, Ph 11.5, Salinity 42000, PV 16, Yield 31, Solids 4.2%, Sand 1/2%. Drlg. Data: Same. Rot. Spd. 64, Pump Press. 1200 psig @ 63 SPM.
3/16/80	4974'	Drilling. Made 276 feet. Hrs.: 23- Drlg., 1/2- Rig Serv., 1/2-Survey. Bit #7 - 8 3/4" Smith F3 in at 4408' made 566 feet in 29 hrs. Survey: 1 1/2° @ 4908'.

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San Juan County, New Mexico

Well Type: Wildcat Development Field Extension Other

Objective Zones: Pennsylvanian Paradox Formation

Projected Depth: 7300' Elevations: 5179' GL 5195' KB

Contractor: Loffland Bros. Company - Rig #211

Spud: 1:00 a.m. 3/1/80 Completed: _____ Status: _____

DATE	DEPTH	DETAILS
3/16/80	4974'	Continued - Mud Properties: MW 9.8, Vis 51, FI 9.4, FC 2/32, Ph 12.5, Salinity 41000, Gels Init. 11, 10 Min. 29, Solids 8.3%, Sand 1/4%. Drlg. Data: Same Rot. Spd. 64, Pump Press. 1300 psig @ 63 SPM. Details: Had water flow at 4743'.
3/17/80	5165'	Drilling. Made 191 feet. Hrs.: 23 3/4- Drlg., 1/4 - Rig Service. Bit #7- 8 3/4" Smith F3 in at 4408' made 757 feet in 52 3/4 hrs. Mud Properties: MW 9.7+, Vis. 61, FI 9.6, FC 2/32, Ph 11.5, Salinity 41000, PV 16, Yield 20, Solids 8%, Sand 1/8%. Drlg. Data: Same.
3/18/80	5301'	Drilling. Made 141 feet. Hrs.: 17 1/4- Drlg., 5 1/4- Trips, 1/2- Survey, 3/4- cut line, 1/4-Service Rig. Bit #7- 8 3/4" Smith F3 in at 4408' out at 5209' made 801 feet in 59 hrs. Bit #8- 8 3/4" Smith F3 in at 5209' made 97 feet in 11 hrs. Survey: Misrun @ 5209'. Mud Properties: MW 9.9, Vis. 49, FI 10.8, FC 2/32, Ph 11, Salinity 38000, PV 14, Yield 13, Solids 9%, Sand 1/4%. Drlg. Data - Same. WOB 45-50000, Rot. Spd. 64, Pump Press. 1300 psig @ 63 SPM.
3/19/80	5572'	Drilling. Made 266 feet. Hrs.: 23- Drlg., 3/4-Surveys, 1/4- Rig Serv. Bit #8- 8 3/4" Smith F3 in at 5209' made 363 feet in 34 hrs. Survey: 1 1/2" @ 5315'. Mud Properties: MW 10.0 Vis. 42, FI 9.8, FC 2/32, Ph 9.5, Salinity 28000, PV 11, Yield 8, Solids 10%, Sand 1/2%. Drlg. Data: Same. WOB 45-50000, Rot. Spd. 64, Pump Press. 1300 psig @ 63 SPM.
3/20/80	5818'	Drilling. Made 246 feet. Hrs.: 23 3/4- Drlg., 1/4- Rig Repair. Bit #8- 8 3/4" Smith F3 in at 5209' made 609 feet in 57 3/4 hrs. Mud Properties: MW 9.9, Vis 40, FI 8.4, FC 2/32, Ph 10, Salinity 22000, PV 10, Yield 6, Solids 10%, Sand 1/2%, LCM =3%. Drlg. Data: WOB 45-50000, Rot. Spd. 64, Pump Press. 1300 psig @ 63 SPM.
3/21/80	6014'	Drilling. Made 196 feet. Hrs.: 23 3/4- Drilling, 1/4-Rig Service. Bit #8- 8 3/4" Smith F3 in at 5209' made 805 feet in 81 1/2 hrs. Mud Properties: MW 9.7, Vis. 46, FI 9.8, FC 2/32, Ph 9.5, Salinity 16000, PV 13, Yield 9, Solids 10, Sand 1/2%. LCM 10%. Drlg. Data: Pump #2- 5" liner. WOB 50-55000, Rot. Spd. 64, Pump Press. 800 psig @ 60 SPM.
3/22/80	6214'	Drilling. Made 200 feet. Hrs.: 23 1/2- Drlg., 1/2- Rig Service. Bit #8- 8 3/4" Smith F3 in at 5209' made 1005 feet in 105 hrs. Mud Properties: MW 9.9, Vis. 38, FI 8.4 Fc 2/32, Ph 9, Salinity 8000, PV 10, Yield 6, Gels Init. 2, 10 Min. 12, Solids 9%, Sand 3/4%. LCM = 10%. Drlg. Data: Pump #2- 5" liner, 800 psig @ 60 SPM. WOB 55000, Rot. Spd. 64.
3/23/80	6398'	Drilling. Made 184 feet. Hrs.: 21 3/4- Drlg., 1 3/4- Change pump seats, 1/2- Ck. wtr. flows w/ MW below 9.8. Bit #8- 8 3/4" Smith F3 in at 5209' made 1189 feet in 126 3/4 hrs. Mud Properties: MW 9.9, Vis. 43, FI 11.8, FC 2/32 Ph 9 Salinity 8100 PV 12, Yield 8, Gels Init. 6, 10 Min. 18, Solids 9, Sand 3/4%. Drlg. Data: Same.
3/24/80	6478'	Circulating after running log. Made 80 feet. Hrs.: 11-Drlg., 6 1/4- Trip 1/2- Surv., 1/4-Rig Serv., 1 3/4- Circ., 4 1/4- Logging. Bit #8- 8 3/4" Smith F3 in at 5209' out at 6478' made 1269 feet in 137 3/4 hrs. Cond. of Bit #8- Teeth-3, Bearing-3 Gauge- In. Survey: 10 @ 6478'. Mud Properties: MW 10.2, Vis 52, FI 10.2, FC 2/32, Ph 9.5, Salinity 8000, PV 18, Yield 10, Gels Init. 4, 10 Min. 16, Solids 11, Sand 3/4%. LCM 3 ppb. Drlg. Data: Pump #1- 5 1/2" 1400 psig @ 63 SPM. WOB 55000, Rot. Spd. 64. Details: SLM @ 6475 = 6478'. Made 3 ft. correction.

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APR 9 1980

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

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Location: 660' FNL 1980' FEL - Section 31, T 29 N - R 17 W

San Juan County, New Mexico

Well Type: Wildcat Development Field Extension Other

Objective Zones: Pennsylvanian Paradox Formation

Projected Depth: 7300' Elevations: 5179' GL 5195' KB

Contractor: Loffland Bros. Company - Rig #211

Spud: 1:00 a.m. 3/1/80 Completed: Status:

DATE	DEPTH	DETAILS
3/24/80	6478'	Continued- Circulated and cond. hole. Tripped out, ran DIL/SP/GR w/linear correlation log.
3/25/80	6500'	Circulating and waiting on 7" casing. Made 22 feet. Hrs.: 3 1/4- Drlg., 20 3/4- Circ. & waiting on csg. Bit #8- 8 3/4" Smith F3 in at 5209' out at 6500' made 1291 feet in 141 hrs. Mud Properties: MW 10.1, Vis. 50, FI 9, FC 2/32, Ph 9.5, Salinity 8000, PV 15, Yield 10, Gels Init. 5, 10 Min. 15, Solids 10%, Sand 1/2%. Drlg. Data: Pump #1- 5 1/2" liner - 850 psig Pump Press. @ 43 SPM, WOB 50,000, Rot. Spd. 64. Details: Prep to run 7" protective casing to 6500' and cmt. w/75 sx.
3/26/80	6500'	Circulating and waiting on 7" casing. Hrs.: 24- Circ. & WO csg. Mud Properties: Same.
3/27/80	6500'	Cementing 7" casing. Hrs.: 10- WO, unload & strap 7" csg., 6- lay down DP and DC's, 8- Run csg. & cmt. Details: Ran 155 jts. 7" casing: 900' K-55 26# LT&C and 5600' K-55 23# LT&C on top. Set @ 6499' KB. RU Dowell. Cmt. w/75 sx CI B + 2% CC. PD at 6:00 a.m. 3/27/80. Had good circulation throughout
3/28/80	6500'	Picking up 3 1/2" drill pipe. Hrs.: 1/2- RD cementer's, 2 1/2- Nippled down, 2- set slips & cut off 7" casing, 3- Nipple up, 2- change out Kellys, 1 1/2- change BOP rams, 1 1/2- strap 4 3/4" DC's & 3 1/2" DP, 1 1/2- Mix mud, 4- RU to p/up drlg. string, 5 1/2- P/up DC's & DP. Bit #9- 6 1/8" Smith DGJ w/3-15's, in at 6500'. Drlg. Data: 24- 4 3/4" DC's (723' long, 30,000 # ttl. weight.)
3/29/80	6544'	Tripping in w/Bit #10. Made 44 feet. Hrs.: 9- Pick up drill pipe, 1- pick up kelly and test BOP stack to 1500 psig. Held okay. 1- Drill float collar, cement and shoe, 4-Drilling, 9- Trips. Bit #9- 6 1/8" Smith DGJ in at 6500' out at 6544' made 44 feet in 4 hrs. Bit #10- 6 1/8" Smith F3 in at 6544'. Condition of Bit #9- Teeth 8, Bearing 6, Gauge 1/2 out. Drlg. Data: WOB 15000, Rot. Spd. 48, Pump #1- 5 1/2" liner. Pump Press. 1500 psig @ 45 SPM.
3/30/80	6675'	Drilling. Made 131 feet. Hrs.: 21 3/4- Drlg., 1-Trips, 1/4- Rig Service, 1- WTB. Bit #10- 6 1/8" Smith F3 (3-16's) in at 6544' made 131 feet in 21 3/4 hrs. Mud Properties: MW 8.6, Vis 36, FI 14.4, FC 1/32, Ph 10, Salinity 150, PV 6, Yield 1, Gels Init. 0, 10 Min. 0, Solids 2, Sand Tr. Drlg. Data: WOB 20000, Rot. Spd. 48, Pump #1- 5 1/2" liner, Pump Press. 1400 psig @ 45 SPM.
3/31/80	6805'	Drilling. Made 130 feet. Hrs.: 23 3/4- Drlg., 1/4- Rig Service. Bit #10- 6 1/8" Smith F3 in at 6544' made 261 feet in 45 1/2 hrs. Mud Properties: MW 8.6, Vis. 35, FI 14, FC 4/32, Ph 12, Salinity 300, PV 5, Yield 5, Solids 1.2, Sand Tr. Drlg. Data: WOB 20000, Rot. Spd. 48, Pump #1- 5 1/2" liner, Pump Press. 1400 psig @ 45 SPM.
4/01/80	6920'	Drilling. Made 115 feet. Hrs.: 23- Drlg., 3/4- Survey, 1/4- Rig Service. Bit #10- 6 1/8" Smith F3 in at 6544 made 376 feet in 68 1/2 hrs. Survey: 1/2" @ 6909'. Mud Properties: MW 8.6, Vis 34, FI 14.8, FC 1/32, Ph 12, Salinity 300, PV 7, Yield 6, Solids 1.8, Sand tr. Drlg. Data: DC's - same. Pump #1- 5 1/2" liner 1400 psig @ 43 SPM. WOB 23000, Rot. Spd. 48.
4/02/80	7082'	Drilling. Made 162 feet. Hrs.: 23 3/4- Drlg., 1/4- Rig Serv. Bit #10- 6 1/8" Smith F3 in at 6544 made 538 feet in 92 1/4 hrs. Mud Properties: MW 8.7, Vis. 35, FI 11.2, FC 1/32, Ph 12, Salinity 350, PV 3, Yield 0, Solids 2%, Sand tr. Drlg. Data: Pump #1- 5 1/2" liner Pump Press. 1400 psig @ 45 SPM. WOB 20-23000, Rot. Spd. 48.

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U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

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Name: Navajo Tract 20- #31-31

Location: 660' FNL 1980' FEL - Section 31, T 29 N - R 17 W

San Juan County, New Mexico

Type: Wildcat Development Field Extension Other

Stratigraphic Zones: Pennsylvanian Paradox Formation

Targeted Depth: 7300' Elevations: 5179' GL 5195' KB

Operator: Loffland Bros. Company - Rig #211

Start: 1:00 a.m. 3/1/80 Completed: Status:

DEPTH	DETAILS
7131'	Drilling. Made 49 feet. Hrs.: 4 3/4-Drlg., 8 1/2- Trips, 1 3/4- WO elevators, 9- Wash & Ream 7059-7103. Bit #10-6 1/8" Smith F3 in at 6544' out at 7087' made 543 feet in 93 1/2 hrs. Bit #11- 6 1/8" Smith F3 w/3-16's, in at 7087' made 44 feet in 3 1/2 hrs. Condition of Bit #10- Teeth -6 Bearing - 5, Gauge - 1/4 out. Mud Properties: MW 8.6, Vis. 39, FI 8.8, FC 1/32, Ph 12, Salinity 300, PV 8, Yield 0, Solids 2.7, Sand tr. Drlg. Data: DC's - Same. Pump #1- 5 1/2" liner, Pump Press. 1400 psig @ 45 SPM. WOB 25000, Rot. Spd. 48. Details: SLM @ 7087' = 7094', made 7 foot correction.
7260'	Drilling. Made 129 feet. Hrs.: 14 3/4- Drlg., 1/4- Rig Serv., 9- Circ. and raise MW to 9.5, (no loss of mud). Mud Properties: MW 9.5, Vis. 34, FI 10, FC 1/32, Ph 12, Salinity 200, PV 5, Yield 3, Solids 2.7, Sand tr. Drlg. Data: DC's - same. Pump #1- 5 1/2", Pump Press. 1400 psig @ 45 SPM. WOB 25,000, Rot. Spd. 48. Details: Had drilling break from 7199 - 7208' from 7 mpf to 1 mpf. 30 mins. later had flow of gas and oil cut mud @ rate of 5 gpm w/8.7 mud and pump shut down. Circulated and raised MW and resumed drilling.
7300'	Circulating and conditioning mud. Hrs.: 3 1/2- Drlg., 20 1/2- Trips, attempt to log, circ. and cond. mud. Bit #11- 6 1/8" Smith F3 in at 7087' out at 7300' made 213 feet in 21 1/2 hrs. Details: Reached total depth and conditioned mud to 9.5 ppg. POOH. Rigged up Schlumberger. Started running first tool, and well started to flow. Pulled logging tool. Tripped in to base of 7" casing and circ. & cond. mud. Circulated out gas and oil cut mud. Tripped and washed to btm. Circ. and cond. mud to 9.8 ppg.
7300'	Running 4 1/2" liner on drill pipe. Details: Pulled bit to base of sfc. csg. and waited 4 hrs. Had no flow. Ran back to btm. and circ. out w/9.8 ppg mud throughout hole and surface volume. POOH. Ran DIL/GR and CNL/FDC/GR/Cal. Rigged down Schlumberger. Started running production liner on drill pipe.
7300'	Laying down drill pipe. Details: Ran 29 jts. 4 1/2" K-55 10.5# LT&C casing for production liner below 7" intermediate csg. (949.66' threads off). Set at 7289' KB. Top of TIW liner hanger in 7" casing @ 6325'. Float collar at 7252'. Landed liner and set hanger slips. Circ. w/ rig pump prior to cementing. Hooked up Dowell. Pumped 10 bbls. CW100 chemical wash followed by 75 sx C1 B + 18% salt by wt. of the water. Had good returns initially decreasing to no returns as final cement was pumped. Initial pumping pressure 1000 psig @ 3 BPM, increasing to 3000 psig @ 2.3 BPM final pumping conditions. Bumped plug to 3300 psig. Held okay. Checked float. Held okay. PD 11:38 p.m. 4/6/80. Set. pkr. on TIW hanger, and released running tool from hanger. Reversed csg./drill pipe annulus with water using rig pump. Started pulling and laying down 3 1/2" drill pipe.
7300'	Rigging down and moving out rotary tools. Details: Laid down all 3 1/2" drill pipe and 4 3/4" drill collars. Nipped down BOP stack. Cleaned mud tanks. Released rig at 2:00 p.m. 4/7/80.

STATE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRODUCTION OFFICE		

NEW MEXICO OIL AND NATURAL GAS CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE

ADJ

AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

BK.

1. Operator
Vista Resources, Inc.

Address
800 Rio Grande Blvd. N.W., Suite 10, Albuquerque, New Mexico 87104

Reason(s) for filing (Check proper box) Other (Please explain)

New Well ☒ Change in Transporter of:
Recompletion ☐ Oil ☐ Dry Gas ☐
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name Navajo Tract 20-31	Well No. 31	Pool Name, including Formation Pajarito Penn "D"	Kind of Lease State, Federal or Fee Tribal	Lease No. 5024
Location Unit Letter <u>B</u> : 660 Feet From The North Line and 1980 Feet From The East				
Line of Section 31 Township 29N Range 17W, NMPM, San Juan County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input checked="" type="checkbox"/> or Condensate <input type="checkbox"/> Plateau, Inc.	Address (Give address to which approved copy of this form is to be sent) 4775 Indian School Rd. N.E. Albuquerque, NM 87110
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input type="checkbox"/> None	Address (Give address to which approved copy of this form is to be sent)
If well produces oil or liquids, give location of tanks.	Unit Sec. Twp. Rge. Is gas actually connected? When
	31 29N 17W No

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> New Well <input checked="" type="checkbox"/> Workover <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Same Res't. <input type="checkbox"/> Diff. Res't. <input type="checkbox"/>
Date Spudded 3/1/80	Date Compl. Ready to Prod. 6/12/80
Elevations (DF, RAB, RT, GR, etc.) 5179 GL 5195 KB	Name of Producing Formation Paradox
Perforations 7195-7197	Total Depth 7300
	Top Oil/Gas Pay 7195
	Tubing Depth 7289 KB
	Depth Casing Shoe

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
17 1/2	13 3/8	202 KB	Circulated
12 1/4	9 5/8	2569 KB	Circulated
8 3/4	7	6499 KB	75 sx C1 B + 2% CC
	4 1/2	7289 KB	75 sx

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks 6/12/80	Date of Test 6/26/80	Producing Method (Flow, pump, gas lift, etc.) Flowing
Length of Test 24 hr.	Tubing Pressure 210 psig	Casing Pressure 200 psig
Actual Prod. During Test 10	Oil-Bble. 10	Water-Bble. 902
		Choke Size 2 1/64
		Gas-MCF TSTM

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bble. Condensate/MMCF	Gravity of Condensate
Testing Method (piston, back pr.)	Tubing Pressure (shut-in)	Casing Pressure (shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

R.H. Hansing R.H. Hansing
(Signature)
Production Co-Ordinator
8/13/80
(Date)

OIL CONSERVATION COMMISSION

APPROVED DEC 28 1980, 19
BY Original Signed by FRANK T. CHAVEZ
SUPERVISOR DISTRICT # 3

TITLE

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for allowable on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter or other such change of condition.
Separate Forms C-104 must be filed for each pool in multiply completed wells.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

(See other instructions on reverse side)

Form approved
Budget Bureau No. 43-4333.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other _____										5. LEASE DESIGNATION AND SERIAL NO. Navajo 14-20-603-5024	
2. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. DESVR. <input type="checkbox"/> Other _____										6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo Tribal	
3. NAME OF OPERATOR Vista Resources, Inc.										7. UNIT AGREEMENT NAME NA	
4. ADDRESS OF OPERATOR 237 Eubank Blvd. N.E. Suite B, Albuquerque, NM 87123										8. FARM OR LEASE NAME Navajo Tract 20	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 660' FNL 1980' FEL Section 31, T 29 N - R 17 W At top prod. interval reported below San Juan County, NM At total depth Same as Above										9. WELL NO. 31-31	
14. PERMIT NO. E.A. Schmidt DATE ISSUED 5/17/78										10. FIELD AND POOL, OR WILDCAT Pajarito Penn "D"	
15. DATE SPUDDED 3/1/80 16. DATE T.D. REACHED 4/5/80 17. DATE COMPL. (Ready to prod.) 6-12-80										11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec. 31, T 29 N-- R 17 W	
18. ELEVATIONS (DF, REB, RT, GR, ETC.)* 5179 GL 5195 KB										12. COUNTY OR PARISH San Juan 13. STATE NM	
20. TOTAL DEPTH, MD & TVD 7300 21. PLUG BACK T.D., MD & TVD 7248 22. IF MULTIPLE COMPL., HOW MANY* NA										19. ELEV. CASINGHEAD 5179	
23. INTERVALS DRILLED BY → ROTARY TOOLS 0-TD CABLE TOOLS None										24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 7195-7197 Paradox (Penn.)	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL/GR, CNL/FDC/GR/Cal.										25. WAS DIRECTIONAL SURVEY MADE No	
27. WAS WELL CORED No											
23. CASING RECORD (Report all strings set in well)											
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED	
13 3/8"		48		202' KB		17 1/2"		Circulated		None	
9 5/8"		36		2569' KB		12 1/4"		Circulated		None	
7"		26 & 23		6499' KB		8 3/4"		75 sx C1 B + 2% CC		None	
29. LINER RECORD											
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)			
4 1/2"		6325' KB		7289' KB		75		None			
30. TUBING RECORD											
SIZE		DEPTH SET (MD)		PACKER SET (MD)							
2 7/8"		7151		7019							
31. PERFORATION RECORD (Interval, size and number) a) 7195-7197' b) 0.4" c) 5 holes						32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.					
DEPTH INTERVAL (MD) 7195-7197						AMOUNT AND KIND OF MATERIAL USED 500 gal 15% HCl					
33. PRODUCTION											
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)						WELL STATUS (Producing or shut-in)			
6/12/80		Flowing						Testing			
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD		OIL—BBL.		GAS—MCF.	
6/26/80		24		21/64"		→		10		TSTM	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BBL.		GAS—MCF.		WATER—BBL.	
210 psig		200 psig		→		10		TSTM		902	
										OIL GRAVITY-API (CORR.)	
										46	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Used for disposal engine.										TEST WITNESSED BY Fred McDaniel	
35. LIST OF ATTACHMENTS Drilling & Completion Report. Logs											
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records											
SIGNED <i>C.D. Gritz</i> C.D. Gritz						TITLE Secretary-Treasurer					
						DATE 10/1/80					

*(See Instructions and Spaces for Additional Data on Reverse Side)

BY *AB*

This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency. A well, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on Items 22 and 24, and 33, below regarding separate reports for separate completions. If not filed prior to the time this summary report is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be filed on this form, see Item 33.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in Item 22, and in Item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in Item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for Items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:			38. GEOLOGIC MARKERS		
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CONED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			NAME		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	MEAS. DEPTH	TRUE VERT. DEPTH
Morrison	1546	2614	Very high porosity water zones	1327	
De Chelly	4645	4688	Water Zone	1546	
Hermosa	6550	6720	Lost Circulation Zones	2614	
Paradox	7195	7197	Water w/oil	2640	
				4057	
				4202	
				4688	
				6046	
				6692	

CORRECTED
REPORTUNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSUBMIT IN DUPL. 2*
(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL:		OIL WELL <input checked="" type="checkbox"/>	GAS WELL <input type="checkbox"/>	DRY <input type="checkbox"/>	Other <input type="checkbox"/>		
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESER. <input type="checkbox"/>	Other <input type="checkbox"/>
2. NAME OF OPERATOR Vista Resources, Inc.						5. LEASE DESIGNATION AND SERIAL NO. Navajo 14-20-603-5024	
3. ADDRESS OF OPERATOR 237 Eubank Blvd. N.E. Suite B, Albuquerque, NM 87123						6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo Tribal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 660' FNL 1980' FEL Section 31, T 29 N - R 17 W San Juan County, NM At top prod. interval reported below Same as Above At total depth Same as Above						7. UNIT AGREEMENT NAME NA	
14. PERMIT NO. E.A. Schmidt						DATE ISSUED 5/17/78	
15. DATE SPUDDED 3/1/80		16. DATE T.D. REACHED 4/5/80		17. DATE COMPL. (Ready to prod.) 6/12/80		18. ELEVATIONS (DP, REB, RT, GR, ETC.)* 5179 GL 5195 KB	
20. TOTAL DEPTH, MD & TVD 7300		21. PLUG, BACK T.D., MD & TVD 7248		22. IF MULTIPLE COMPL., HOW MANY* NA		23. INTERVALS DRILLED BY Q-TD	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 7195-7197 Paradox (Penn.)						25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL/GR, CNL/FDC/GR/Ca1.						27. WAS WELL CORED No	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
13 3/8"		48		202' KB		17 1/2"	
9 5/8"		36		2569' KB		12 1/4"	
7"		26 & 23		6499' KB		8 3/4"	
CEMENTING RECORD		AMOUNT PULLED					
Circulated		None					
Circulated		None					
75 sx C1 B + 2% CC		None					
29. LINER RECORD							
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*	
4 1/2"		6325' KB		7289' KB		75	
SCREEN (MD)		TUBING RECORD					
None		SIZE		DEPTH SET (MD)		PACKER SET (MD)	
		2 7/8"		7151		7019	
31. PERFORATION RECORD (Interval, size and number)							
a) 7195-7197'							
b) 0.4"							
c) 5 holes							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)				AMOUNT AND KIND OF MATERIAL USED			
7195-7197				500 gal 15% HCl			
33.* PRODUCTION							
DATE FIRST PRODUCTION 6/12/80		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Testing	
DATE OF TEST 6/26/80		HOURS TESTED 24		CHOKE SIZE 21/64"		PROD'N. FOR TEST PERIOD →	
FLOW, TUBING PRESS. 210 psig		CASING PRESSURE 200 psig		CALCULATED 24-HOUR RATE →		OIL—BSL. 10	
						GAS—MCF. TSTM	
						WATER—BSL. 902	
						GAS-OIL RATIO TSTM	
						OIL GRAVITY-API (CORR.) 46	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Used for disposal engine.						TEST WITNESSED BY Fred McDaniel	
35. LIST OF ATTACHMENTS Drilling & Completion Report. Logs							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED C.D. Gritz		TITLE Secretary-Treasurer				DATE 8/13/80	

*(See Instructions and Spaces for Additional Data on Reverse Side)

MOCC

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 33.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CORED INTERVALS, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TOP
						TRUE VERT. DEPTH
rrison	1546	2614	Very high porosity water zones	Dakota	1327	
Chelly	4645	4688	Water Zone	Morrison	1546	
rmosa	6550	6720	Lost Circulation Zones	Todilto	2614	
radox	7195	7197	Water w/oil	Entrada	2640	
				Shinarump	4057	
				De Chelly	4202	
				Organ Rock	4688	
				Upper Hermosa	6046	
				Paradox	6692	