

CHURCHILL COUNTY

Churchill County oil and gas drilling is restricted to the Carson Sink-Carson Desert area in the western part of the county. Nearly all of the drilling activity occurred during the 1920's and the 1960's. The early drilling resulted from a general high level of interest in petroleum exploration at that time and the known gas seeps and oil shows in shallow wells. Apparently some wells were drilled for which no information is available (figs. 4 and 5). Most of the 1960's wells were drilled by the Churchill Drilling Corp. There was a considerable amount of speculation and promotion associated with the drilling and leasing in both the 1920's and 1960's.

Morrison (1964, p. 114-115) has carefully documented the known seeps and water-well shows of flammable gas in the Carson Desert area. The following is quoted from his report:

Occurrences of natural gas.—Hydrocarbon-bearing natural gas issues from more than two dozen wells that have been drilled for water or as test wells for oil and gas. These wells are in a northeastward-trending belt 5 to 10 miles wide that extends from 1½ miles west of Carson Lake to about 10 miles northeast of Stillwater [about 15 wells in T17N and T18N, R28E and R29E; and in T19N, R30E and R31E]. A few wells have estimated yields of several hundred cubic feet of gas a day, but most yield less. Several of the better producers, located mostly near Stillwater, have in the past supplied gas for heating and cooking at nearby ranch houses, but in 1947-50 none were still in use.

Only some of the gas-producing wells yield inflammable gas, and even this seems to be considerably diluted by air. Methane is the principal hydrocarbon, although at least two wells yield small percentages of ethane and higher hydrocarbons.

Most wells are less than 300 feet deep; their gas comes from highly organic sediments in the [Pleistocene] Wyemaha formation. Some of the deeper wells may derive gas from pre-Lake Lahontan Quaternary sediments, but there has been no production from pre-Quaternary rocks.

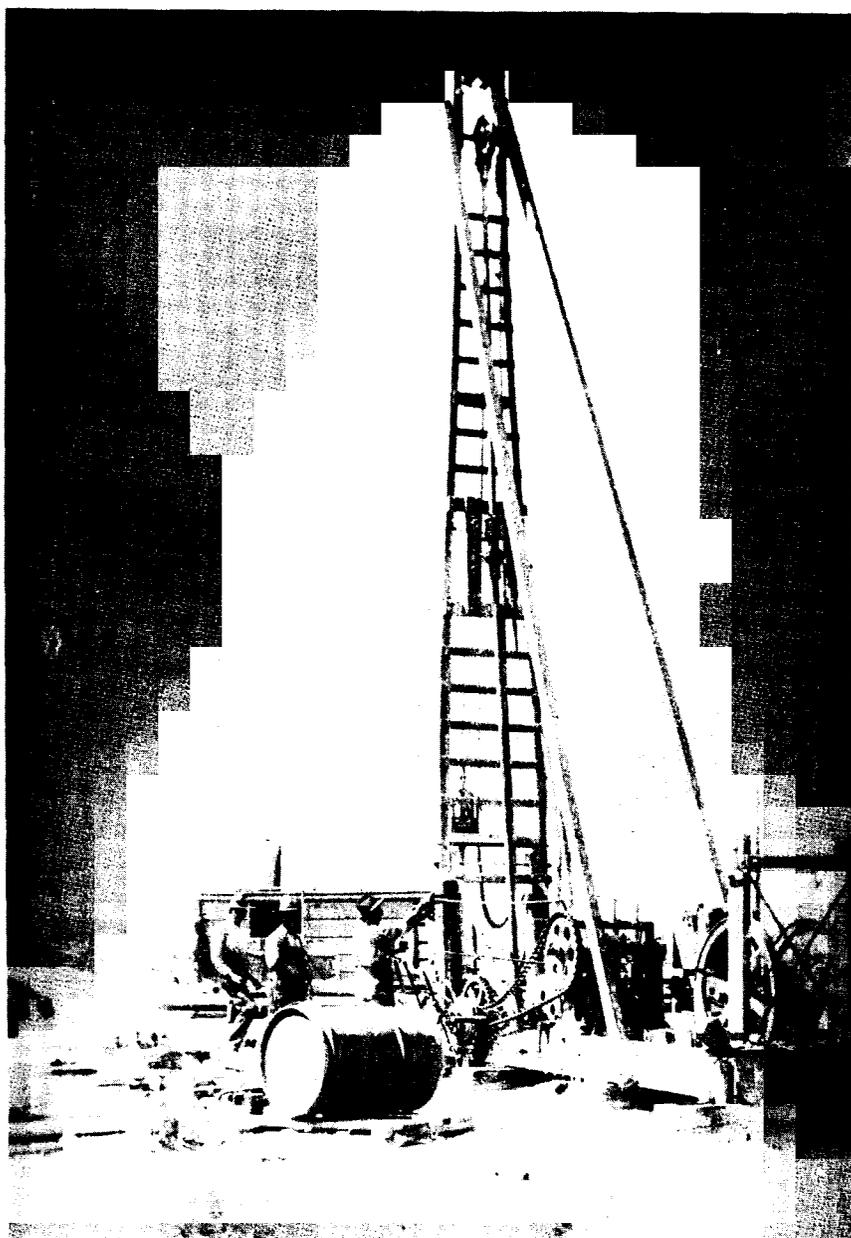


FIGURE 4.—Fallon Oil and Gas Co. drilling a well in the Carson Desert, Churchill County, circa 1920. *Nevada Historical Society photo.*

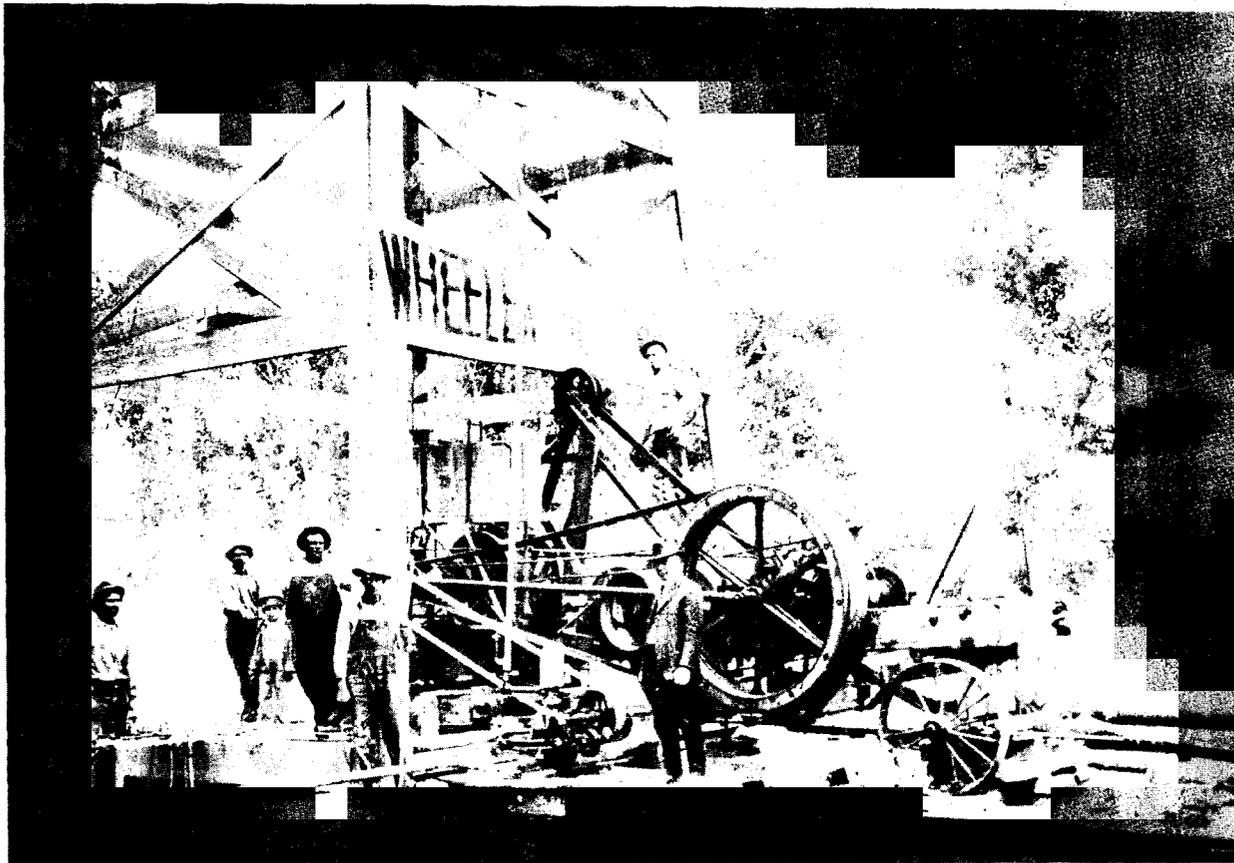


FIGURE 5.—Wheeler Oil Syndicate well, 1920's, Churchill County. Nevada Historical Society photo.

The first recognition of natural gas from the area was in 1865, when an oil claim was filed on a gas seepage at Soda Lake [secs. 7 and 8, T19N, R28E]. This seepage apparently now is inundated by the 55-foot rise of Soda Lake since development of the Newlands Reclamation Project. Two other reported former gas seeps, one in the SW $\frac{1}{4}$ sec. 27, T. 19 N., R. 28 E., and another in the SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 18 N., R. 29 E., have been covered and lost because of field leveling.

Occurrence of petroleum.—In 1911-12, a 909-foot test well (Timber Lake well) was drilled for the U.S. Geological Survey in sec. 30, T. 21 N., R. 30 E., about 14 miles northeast of Fallon, as part of the program of exploration for potash in the basins of the arid southwest. The log of this well (Gale, 1913) mentions that oil spots were observed in the sludge water at five horizons. These horizons probably are of Wymaha and (or) pre-Lake Lahontan Quaternary age. This is the only substantiated occurrence of petroleum in the area [before 1950, see below].

From 1919 to 1923 there was much excitement over the oil possibilities near Fallon. Several oil companies were promoted, and over a dozen test wells were drilled to depths ranging from a few hundred to 3,200 feet. Although some of these wells were alleged to have shows of oil, none of the reports have been substantiated, and most of them seem extremely unlikely. A few of the wells yielded minor amounts of gas.

Some of the oil and gas exploration wells drilled in Churchill County in the 1960's also reported shows, especially of shallow gas. Oil and gas shows, including free oil in vugs at the top of a core of basalt at 8,168 ft depth, were reported from the Standard-Amoco S. P. Land Co. No. 1 well drilled in 1974 in the eastern part of the Carson Sink. According to Hastings (1979), the

results of this drilling and other studies suggest that the Carson Sink contains a large volume of organic-rich oil-prone source rocks, but temperatures of these rocks are too low to generate significant amounts of oil.

Well Data

CALNEVA OIL CO.

Way Bros. No. 1

API no.: 27-001-05054

Permit no.: CH13

Location: SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T19N, R31E

200 ft from south line, 350 ft from west line

Elevation: 3,937 ft

Completed: Sept. 12, 1924

Status: D & A

Depth: 1,560 ft

CHURCHILL DRILLING CORP.

Barbara No. 1

API no.: 27-001-05007

Permit no.: 54

Location: NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T20N, R29E

Elevation: 3,910 ft

Completed: Sept. 29, 1961

Status: P & A

Depth: 400 ft

Tops:

Surface valley fill

Remarks: Valley fill and lakebeds to bottom. Good water reported from 300-340 ft.

CHURCHILL COUNTY (continued)

CHURCHILL DRILLING CORP.

Churchill County No. 1

API no.: 27-001-05010

Permit no.: 60

Location: SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T22N, R30E

990 ft from north line, 990 ft from west line

Elevation: 3,874 ft

Completed: Mar. 26, 1985

Status: D & A

Depth: 2,615 ft

Tops:

Surface valley fill

Remarks: Valley fill and lakebeds to bottom. Location may be 820 ft from the north line and 2,660 ft from the west line. Operator also identified as Falcon Gas & Petroleum. Gas show at 2,400 ft.

CHURCHILL DRILLING CORP.

Ernst No. 1

API no.: 27-001-05005

Permit no.: 45

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T18N, R29E

1,200 ft from north line, 425 ft from east line

Elevation: 3,969 ft

Completed: Oct. 10, 1960

Status: P & A

Depth: 3,822 ft

Tops:

Surface valley fill

Logs:

Driller 0-3,883 ft

ES 194-3,822 ft

Remarks: Valley fill and lakebeds to bottom. Good water at 26-130 ft. Junk in hole.

CHURCHILL DRILLING CORP.

Ernst No. 1-A

API no.: 27-001-05040

Permit no.: 49

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T18N, R29E

1,200 ft from north line, 425 ft from east line

Elevation: 3,928 ft

Completed: Nov. 10, 1960 (?)

Status: D & A

Depth: 506 ft

Remarks: Valley fill and lakebeds to bottom.

CHURCHILL DRILLING CORP.

Ernst No. 2

API no.: 27-001-05004

Permit no.: 47

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T18N, R29E

1,200 ft from north line, 425 ft from east line

Elevation: 3,928 ft

Status: D & A

Depth: 333 ft

Remarks: Valley fill and lakebeds to bottom.

CHURCHILL DRILLING CORP.

Evelyn No. 1

API no.: 27-001-05041

Permit no.: 52

Location: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T18N, R29E

Elevation: 3,927 ft

Completed: 1961

Status: D & A

Depth: 232 ft

Remarks: Valley fill and lakebeds to bottom.

CHURCHILL DRILLING CORP.

Lima No. 1

API no.: 27-001-05000

Permit no.: 50

Location: NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T18N, R28E

1,520 ft from north line, 983 ft from west line

Elevation: 3,983 ft

Completed: Aug. 2, 1960

Status: D & A

Depth: 1,255 ft

Remarks: Valley fill and lakebeds to bottom.

CHURCHILL DRILLING CORP.

Reggie No. 1

API no.: 27-001-05003

Permit no.: 40

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T18N, R28E

673 ft from north line, 285 ft from east line

Elevation: 3,965 ft

Completed: Apr. 30, 1960

Status: D & A

Depth: 8,001 ft

Logs:

ES 2,800-6,164 ft

IES 4,903-7,673 ft

Driller 0-6,313 ft

Remarks: Valley fill and lakebeds to bottom. Reportedly deepened from 6,500 to 8,001 ft in 1961.

CHURCHILL DRILLING CORP.

Stewart No. 1

API no.: 27-001-05001

Permit no.: 44

Location: NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T18N, R28E

242 ft from north line, 242 ft from east line

Elevation: 3,981 ft

Completed: July 20, 1960

Status: D & A

Depth: 2,827 ft

Logs:

Driller 0-2,827 ft

Remarks: Valley fill and lakebeds to bottom.

CHURCHILL DRILLING CORP.

T.C.I.D. No. 1

API no.: 27-001-05008

Permit no.: 61

Location: SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T22N, R30E

990 ft from north line, 990 ft from west line

Elevation: 3,875 ft

Completed: July 25, 1962

Status: D & A

Depth: 3,758 ft

Logs:

IES 2,608-3,757 ft

Remarks: Valley fill and lakebeds. Operator name may be Falcon Gas & Petroleum. Possibly located in sec. 14, 840 ft from north line, 2,640 ft from west line. Perforations at 3,125-3,150 ft produced salt water with some gas.

CHURCHILL DRILLING CORP.

Williams No. 1

API no.: 27-001-05002

Permit no.: 56
Location: SW ¼ SE ¼ SE ¼ sec. 13, T18N, R28E
338 ft from south line, 1,040 ft from east line
Elevation: 3,953 ft
Completed: June 20, 1961
Status: D & A
Depth: 4,750 ft
Logs:
IES 373-4,723 ft
Driller 0-4,750 ft
Remarks: Valley fill and lakebeds to bottom.

COUNCIL OIL CO.

No. 1
API no.: 27-001-05051
Permit no.: CH7
Location: NW ¼ NW ¼ SE ¼ sec. 3, T20N, R32E
Elevation: 4,000 ft
Completed: 1921
Status: D & A
Depth: 300 ft

DIAMOND OIL CO.

No. 1
API no.: 27-001-05050
Permit no.: CH11
Location: NE ¼ NE ¼ NW ¼ sec. 34, T18N, R31E
Elevation: 3,937 ft
Completed: 1922
Status: D & A
Depth: 1,700 ft

DIXIE VALLEY LTD. PARTNERSHIP

Ernst No. 1
API no.: 27-001-05064
Permit no.: 351
Location: SW ¼ SW ¼ sec. 21, T18N, R29E
500 ft from south line, 1,100 ft from west line
Elevation: 3,927 ft
Completed: June 9, 1983
Status: P & A
Depth: 1,026 ft
Logs:
GR/N 800-1,016 ft
ES 590-1,026 ft
Remarks: Oil zone reported at 917-925 ft (heavy brown paraffin residual oil reported). Water zones at 540-545 ft and 760-763 ft (water rose to within 30 ft of the surface).

FALLON EXTENSION OIL & GAS CO.

No. 1
API no.: 27-001-05049
Permit no.: CH10
Location: center, NE ¼ SE ¼ sec. 22, T19N, R28E
Elevation: 3,937 ft
Completed: 1922
Status: D & A
Depth: 1,076 ft
Remarks: Water stands 16 ft below the top of the casing.

FALLON NEVADA OIL CO.

No. 1
API no.: 27-001-05052
Permit no.: CH8
Location: SW ¼ SW ¼ NE ¼ sec. 16, T20N, R32E
Completed: 1921 (?)
Status: ?
Depth: 250 ft

FALLON OIL & GAS CO.

No. 1
API no.: 27-001-05045
Permit no.: CH3
Location: NW ¼ NW ¼ NW ¼ sec. 5, T18N, R31E
200 ft from north line, 150 ft from west line
Elevation: 3,940 ft
Completed: 1921 (?)
Status: P & A
Depth: 1,327 ft

FALLON OIL & GAS CO.

No. 1-A
API no.: 27-001-05047
Permit no.: CH5
Location: E ½ NE ¼ NE ¼ sec. 6, T19N, R31E
Elevation: 3,937 ft
Completed: 1921 (?)
Status: P & A
Depth: 400 ft

FALLON OIL & GAS CO.

No. 2
API no.: 27-001-05046
Permit no.: CH4
Location: center, SE ¼ SE ¼ SE ¼ sec. 5, T18N, R31E
Elevation: 3,940 ft
Completed: 1921 (?)
Status: P & A
Depth: 705 ft

FALLON OIL & GAS CO.

No. 2-A
API no.: 27-001-05048
Permit no.: CH6
Location: NE corner, NE ¼ NE ¼ sec. 6, T18N, R31E
Elevation: 3,937 ft
Completed: 1921 (?)
Status: D & A
Depth: 1,300 ft

FALLON PIONEER OIL CO.

No. 1
API no.: 27-001-04998
Permit no.: CH2
Location: S ½ SE ¼ NE ¼ sec. 8, T19N, R32E
Status: D & A
Depth: 1,540 ft
Tops:
Surface valley fill (TD)

FALLON UNION OIL CO.

No. 1
API no.: 27-001-05044
Permit no.: CH1
Location: SE ¼ NW ¼ sec. 24, T19N, R26E
Status: D & A
Depth: 650 ft
Remarks: Claimed show of oil and gas at 585 ft.

HALBOUTY, MICHAEL T.

Federal No. 1
API no.: 27-001-05063
Permit no.: 181
Location: sec. 14, T17N, R28E
660 ft from south line, 1,650 ft from west line
Elevation: 3,927 ft

CHURCHILL COUNTY (continued)*Completed:* Aug. 21, 1976*Status:* P & A*Depth:* 7,060 ft*Tops:*

Surface	Quaternary 100 ft Pliocene 960 ft late Miocene
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Logs:

CN/FDL	518-7,077 ft
DIL	517-7,071 ft
BHCS	520-7,075 ft
DM	516-7,074 ft

Samples:

Cuttings	60-7,060 ft
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Remarks: Organic carbon analysis is available at NBMG.**HART, E. W.****No. 1***API no.:* 27-001-05053*Permit no.:* CH9*Location:* NW¼SW¼ sec. 20, T19N, R31E*Elevation:* 3,910 ft*Completed:* 1922*Status:* D & A*Depth:* 200 ft**LAHONTAN OIL SYNDICATE****No. 1***API no.:* 27-001-05056*Permit no.:* CH14*Location:* NE corner, NE¼SW¼ sec. 20, T18N, R31E*Elevation:* 4,193 ft*Completed:* Mar. 1926*Status:* P & A*Depth:* 2,015 ft**NEVADA GAS LANDS, INC.****Bono No. 11***API no.:* 27-001-05042*Permit no.:* 58*Location:* NW¼SW¼SW¼ sec. 18, T17N, R29E

1,020 ft from south line, 410 ft from west line

Elevation: 3,920 ft*Completed:* 1962*Status:* D & A*Depth:* 417 ft*Remarks:* Well initially flowed water with some gas (Petroleum Information). Valley fill and lakebeds to bottom.**NEVADA GAS LANDS, INC.****Helen No. 1***API no.:* 27-001-05043*Permit no.:* 55*Location:* NW¼NW¼NW¼ sec. 18, T17N, R29E

189 ft from north line, 137 ft from west line

Elevation: 4,100 ft*Completed:* Sept. 1961*Status:* D & A*Depth:* 400 ft*Remarks:* Well initially flowed water with some gas (2,000 cubic ft per day) from a Quaternary sand at 384-400 ft (Petroleum Information). Valley fill and lakebeds to bottom.**STANDARD OIL CO.****Standard-Amoco-S.P. Land Co. No. 1***API no.:* 27-001-05062*Permit no.:* 161*Location:* center, NW¼ sec. 33, T24N, R33E

660 ft from north line, 660 ft from west line

Elevation: 3,877 ft*Completed:* Oct. 10, 1985*Status:* P & A*Depth:* 11,000 ft*Tops:*

125 ft	Pleistocene Eetza Fm.
560 ft	Pleistocene Paiute Fm.
665 ft	Pleistocene Rye Patch Fm.
2,040 ft	Pleistocene Lovelock Fm.
2,075 ft	Pleistocene Humboldt Valley Fm.
2,985 ft	Pleistocene
3,165 ft	Pliocene Truckee Fm.
6,950 ft	Pliocene Desert Peak Fm.
9,470 ft	Pliocene
10,240 ft	Oligocene and Miocene tuffs

Logs:

Lithologic	73-11,000 ft
BHCS	375-875 ft
FDC/GR	373-872 ft
IES	375-874 ft
DIL	375-10,996 ft
CNL	877-11,000 ft
Micro-seismogram	186-3,063 ft
DM	877-11,002 ft

Samples:

Cuttings	4-11,000 ft
Core	5,145-5,169 ft

Remarks: Core and sidewall sample descriptions available at NBMG. Oil and gas shows at 4,500-8,400 ft. Free oil was found in a core of basalt at 8,168 ft (Hastings, 1980). DST's at 3,076-3,708 ft and 3,020-3,050 ft had gas (methane) shows and at 8,104-8,208 ft oil and gas shows.**SYNDICATE OIL CO.****No. 1***API no.:* 27-001-04999*Permit no.:* CH12*Location:* N¼SW¼ sec. 18, T17N, R29E*Elevation:* 3,918 ft*Completed:* 1923*Status:* P & A*Depth:* 3,200 ft*Tops:*

Surface	Pleistocene Fallon Fm.
20 ft	Pleistocene Sehoo Fm.
45 ft	Pleistocene Wyemaha Fm.

Logs:

Lithologic	0-2,735 ft
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Remarks: Several gas shows and one oil show reported (Lintz, 1957a), including a strong gas show at 3,147-3,152 ft (Morrison, 1964, p. 151). The operator is also known as Miller Syndicate Oil & Gas Co.**THORPE, H.B. (LANE & THORPE)****Carson Sink No. 1***API no.:* 27-001-05061*Permit no.:* 72*Location:* center, SE¼NW¼ sec. 19, T22N, R30E*Elevation:* 3,880 ft*Completed:* Dec. 8, 1963*Status:* P & A*Depth:* 2,805 ft*Logs:*

S	400-2,790 ft
IES	400-2,794 ft

Remarks: Oil zone reported at 990-1,000 ft. Gas zone reported at 2,200-2,600 ft. Well flowed water at 100 GPM. Possibly

located in sec. 18, 350 ft from south line, 360 ft from west line.

UNION OIL CO.

S. P. Brady No. 1

API no.: 27-001-90010

Permit no.: 166

Location: SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T22N, R26E

746 ft from south line, 1,349 ft from east line

Elevation: 4,149 ft

Completed: July 13, 1974

Status: Geothermal well

Depth: 7,275 ft

Logs:

Lithologic	0-7,240 ft
TS	450-5,665 ft
CNL/FDC	1,044-5,708 ft
IES	1,044-5,708 ft

Remarks: Put in production July 13, 1974. Water zone at 2,120 ft, static water level \pm 25 ft from surface flowing intermittently steam and hot water at various rates. Bottom-hole temperature was 298°F. This information as of October 11, 1984.

CLARK COUNTY

The first exploration well known to have been drilled in Clark County was completed in 1929 near Arden, 15 miles southwest of Las Vegas. An area near Mesquite in the northeastern part of the county was touted as a prospective oil area (Nevada State Journal, 1929), but no wells are known to have been drilled in Nevada as a result of the promotion.

Some sporadic drilling was done in the 1940's, but the more serious efforts began in 1950, when exploration throughout Nevada increased significantly. Although a number of wells have reported oil shows, the lack of a discovery and the general decrease in Nevada drilling in the late 1960's and early 1970's resulted in few wells being drilled in Clark County until the early 1980's. Some of these recent wells were drilled to test the possibility of "overthrust belt" oil fields like those in western Wyoming and northeastern Utah. Nevada's deepest (19,562 ft) well, the Mobil Oil Corp. Virgin River U.S.A. No. 1-A was drilled in Clark County in 1980 as an unsuccessful overthrust test.

Well Data

BANNISTER, E. W.

No. 1

API no.: 27-003-05055

Permit no.: CL4

Location: SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T21S, R60E

500 ft from south line, 1,800 ft from west line

Elevation: 2,750 ft

Completed: August 1929

Status: P & A Depth: 522 ft

Remarks: A shallow test of the Arden Dome (Lintz, 1957a, p. 21).

BIG BASIN OIL CO.

Government No. 1

API no.: 27-003-05042

Permit no.: CL24

Location: center, SE $\frac{1}{4}$ sec. 17, T23S, R61E

1,320 ft from south line, 1,320 ft from east line

Elevation: 2,000 ft (?)

Completed: May 31, 1953

Status: D & A

Depth: 900 ft or 1,180 ft

Remarks: A ditch sample from near the bottom of the hole was a white crystalline limestone, probably Mississippian age (Lintz, 1957a, p. 25).

BLACK GOLD OIL AND GAS EXPLORATION CO. (INTERMOUNTAIN ASSOCIATION)

No. 1 (Golden Spike)

API no.: 27-003-05052

Permit no.: CL26

Location: S $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T23S, R59E

405 ft from south line, 555 ft from west line

Elevation: 2,800 ft (estimate)

Completed: Sept. 1953

Status: D & A

Depth: 1,670 ft

Tops:

Surface	alluvium
1,380 ft	Mississippian

Remarks: Water in hole at 200-300 ft. Slight odor of gas in water.

BONANZA OIL CO.

Arden Dome No. 1

(Consolidated Government No. 1)

API no.: 27-003-05007

Permit no.: 34

Location: NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T21S, R60E

2,052 ft from south line, 1,919 ft from west line

Elevation: 2,620 ft

Completed: Aug. 28, 1959

Status: P & A

Depth: 3,282 ft

Tops:

2,700 ft	Pennsylvanian
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Remarks: Oil show reported at 740 ft. Oil and gas shows at 1,500 ft and 1,700 ft (Supai Fm.). Two ft of oil sand near 1,600 ft. Gas shows at 3,056-3,072 ft (Bird Spring Fm.), oil shows at 3,239-3,260 ft. Bottomed in shale and hard limestone. Well re-entered and logged in 1970 (Bissell, 1973, p. 75) as the Time Petroleum Inc. Federal no. 31-1 (Permit no. 148). The DST recovered 2,700 ft of fresh water in a 1-hour test.

BRAY, OSCAR

No. 1

API no.: 27-003-05014

Permit no.: CL28

Location: NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T28S, R62E

Elevation: 4,300 ft

Completed: May 11, 1962

Status: D & A

Depth: 840 ft

BROWN, JOE W.

Wilson No. 1

API no.: 27-003-05008

Permit no.: 33

Location: center, NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T21S, R61E

660 ft from N line, 660 ft from west line

Elevation: 2,100 ft

Completed: Mar. 1, 1957