LYON COUNTY (continued)

hope for an appreciable quantity of oil to be found, and no confirmed oil shows or seeps were known from the county. Anderson (1909c) stated that black manganese oxide minerals in Quaternary sediments in Smith Valley could be mistaken for asphalt. He also mentioned that a constant stream of flammable gas issued from one point in the center of the valley floor. He suggested that it was marsh gas (biogenic methane), not an indicator of oil, a suggestion that still appears valid today.

Well Data

NEVADA COAL & OIL CO.

API no.: 27-019-05001 Permit no.: LY2 Location: sec. 36, T8N, R27E; or sec. 1, T7N, R27E Completed: 1920 Status: D & A Remarks: This well is located close the Fact Fach of

Remarks: This well is located along the East Fork of the Walker River near Washington mining district and Wichman Canyon, approximately 30 miles south of Yerington.

YERINGTON OIL & GAS CO.

API no.: 27-019-05000 Permit no.: LY1 Location: T15N, R26E Status: D & A Depth: 262 ft Tops: Surface sand 248 ft porphyritic igneous rock

Logs: Driller

0-262 ft

Remarks: This well is located 7 to 10 miles east of Wabuska and north of the bend in the Walker River.

NYE COUNTY

Although there are some indications of oil exploration in Nye County during the oil boom of the early twentieth century, there are no reliable records of any drilling before 1954. Serious planning was given to the drilling of a well near Currant in 1920 (Engineering and Mining Journal, 1920), and this well may be the one being drilled in figure 8, but no further information is available.

The presence of oil and tarry or solid bitumen in outcrop has been noted in a number of places in northwestern Nye County. At Bisoni-McKay (secs. 17, 18, and 19, T14N, R52E), solid bitumen veinlets in siliceous limestone of the Devonian Woodruff Formation were reported by Poole and Claypool (1984). They also reported oil-filled fossil cavities in the Mississippian Chainman Shale in four localities: Duckwater Hills (sec. 21, T13N, R56E; Youngquist, 1949, p. 277), Sand Spring (sec. 32, T12N, R55E), Andrews Spring (sec. 26, T9N, R58E), and Forest Home Creek (sec. 17, T6N, R59E). In addition, minor oil staining was observed by Bortz (1985) in limestone of the Tertiary Sheep Pass Formation in the Grant Range east of the Eagle Springs field (sec. 26?, T9N, R58E).

Diana's Punch Bowl (sec. 22, T14N, R47E), a warm spring in north-central Nye County, has been suggested

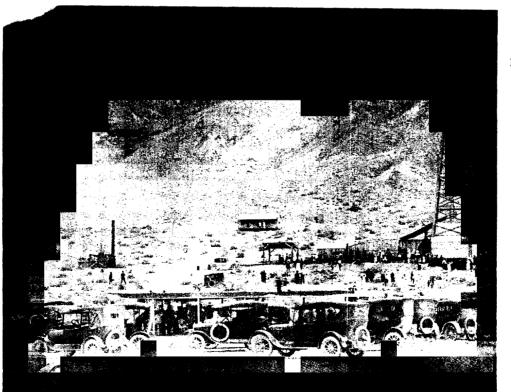


FIGURE 8.—Oil exploration in Nye County during the 1920's; exact location unknown. Nevada Historical Society photo. as a possible hydrocarbon gas seep, although no gas composition is reported (Bortz, 1985, p. 122). Spurr (1905, p. 257) reported that J. L. Butler, the discoverer of the outcrops of silver ore at Tonopah, said that gas was formerly emitted from the warm spring pool, and flames were occasionally seen. A warm spring at Pott's Ranch, in sec. 2, T14N, R47E, about 3 miles north of Diana's Punch Bowl, is reported to emit gas of an unknown composition (Bortz, 1985). These springs are in the central part of the valley and may be underlain by Quaternary sediments capable of generating biogenic methane.

Nevada's first producing oil well, the Shell Oil Co. Eagle Spring Unit No. 1-35, was drilled in Nye County in 1954. It took 22 years of exploration drilling before Northwest Exploration Co. drilled the discovery well of Nevada's second oil field, located only 8 miles west of the Eagle Springs field (fig. 9, pl. 1). One hundred and sixty wells have been drilled in Railroad Valley in search of oil and gas, and those along with others drilled elsewhere in the northeastern part of the county total 179, making Nye the most-drilled county in the state.

Through the end of 1986, six fields have been discovered in Railroad Valley. Available data on each of the fields are summarized in the following subsection, using the format of Duey (1983d). Oil characteristics of these fields are summarized in table 1. There is considerable variation among the fields and the oil produced. Some are one-well fields. The productive areas of fields varies from less than 1 to more than 4 square miles, and the depth to production ranges from slightly more than 4,000 ft to more than 7,000 ft. The Bacon Flat and Currant fields (both are one-well fields) are reasonably well constrained by the known structure and surrounding dry holes. The one well at the Kate Spring field was completed in early 1986, and was shut in later in the year due to the declining price of oil and the high cost of pumping the low quality crude. Thus, the extent of the Kate Spring field is yet to be tested.

Many references in the bibliography of this report describe aspects of the Railroad Valley oil fields. No attempt is made here to present a complete geologic discussion of the valley and adjacent mountain ranges. Duey (1983d) presented a summary of the structure and

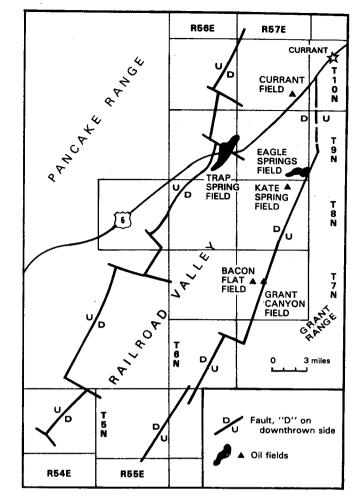


FIGURE 9.—Major normal faults in Railroad Valley (after Duey, 1983d, fig. 2).

stratigraphy of the valley: Bortz and Murray (1978a,b, 1979) and Duey (1979) described the geology at the Trap Spring and Eagle Springs fields. Other specific references on the area include Dolly (1979), Foster (1979), French and Freeman (1979a), Guion and Pearson (1979), Vreeland and Berrong (1979), and French (1983a,b).

 TABLE 1.—Characteristics of oils from Railroad Valley fields, Nye County (mainly from Duey, 1983d, and written commun., 1986)

	API gravity	Pour point		Sulfur	Saybolt viscosity				Reservoir
Field			Color		oil 100°F	oil T _r	water T _r	Tr	depth (approx)
Bacon Flat	28°	10°F	Black	0.4%	173	45	0.34	309°F	5,300 ft
Currant	15°	80–95°F	Bl-brown	3.9%	28,500	520	0.35	195°F	7,000 ft
Trap Spring	21-25°	0–40°F	Black	0.8%	90	90	0.75	95°F	4,500 ft
Eagle Springs	26-29°	65-80°F	Black	1.7%	66	5	0.34	200°F	6,000 ft
Grant Canyon	26°	10°F	Black	0.8%	312	80 (est.)	0.35	230°F	4,000 ft
Kate Spring	10.5°	?	?	?	?	?	?	180°F	4,800 ft

 T_r = reservoir temperature

Railroad Valley Field Summaries

Perforations: none; open hole 6,450-6,730 ft EAGLE SPRINGS (see figs. 10 and 11) TRAP SPRING (see figs. 12, 13, and 14) Source of information: Duey (1983d) Source of Information: Duey (1983c.d) and NBMG files Geology Producing formation: Oligocene Garrett Ranch Volc., Geology Eocene Sheep Pass Fm., Pennsylvanian Ely(?) Ls. Producing formation: Oligocene tuff of Pritchards Trap type: structural-stratigraphic Station Trap type: structural-stratigraphic Thickness and lithology of reservoir rock: maximum 275 ft, ignimbrite, limestone Thickness and lithology of reservoir rock: 847 ft, Oldest formation penetrated: Cambrian fractured ignimbrite Oldest formation penetrated: Devonian Guilmette Fm. Reservoir data Reservoir data Productive area: 640 acres Number of producing wells: 11 Productive area: 2,080 acres Number of producing wells: 28 Number of abandoned wells: 3 Number of abandoned wells: 0 Number of dry holes: 10 Number of dry holes: 9 Porosity: ignimbrites 13.5%, Sheep Pass Fm. 16% Seal: indurated valley fill (Horse Camp Fm.) Porosity: unknown, fractures Seal: weathered ignimbrite below unconformity Oil/water contact: - 2,000 ft Oil/water contact: - 200 ft Vertical oil column: 1,500 ft Vertical oil column: 1,700 ft Gas analysis: unknown, but low gas/oil ratio Associated water analysis: Cl 24,298 mg/L; Rw 0.32 Q·m Associated water analysis: Ca 23, Mg 6, Na 2100, Fe 0, Cl 3,020, HCO₃ 488, SO₄ 26 mg/L; R_w 1.1 Ω•m at at 70°F Type of drive: water and gravity drainage 68°F. Type of drive: water

Discovery well

Shell Eagle Springs Unit No. 1-35 E1/2NW1/4 sec. 35, T9N, R57E

Discovery well

Northwest Exploration Trap Spring No. 1

Date of completion: July 6, 1954

Total depth: 10,358 ft Initial production: 343 BOPD

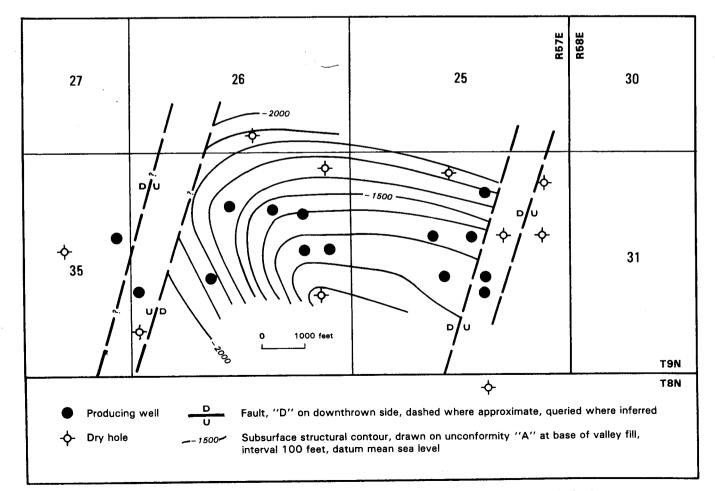
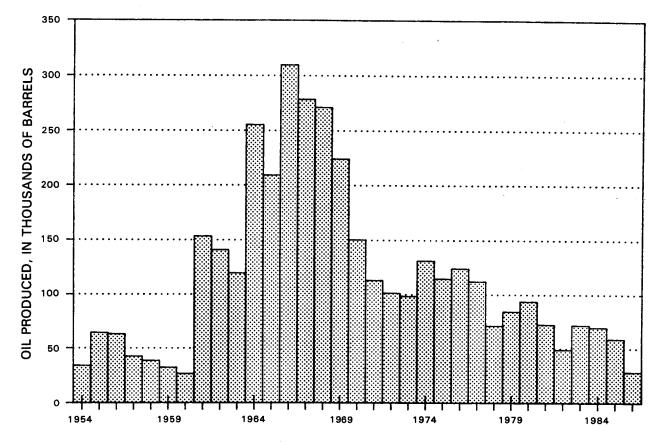
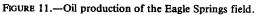


FIGURE 10.—Structural contour map of the Eagle Springs field (from Bortz and Murray, 1979, fig. 6).





SE¹/₄SE¹/₄ sec. 27, T9N, R56E Date of completion: Nov. 30, 1976 Total depth: 6,137 ft Initial production: 417 BOPD Perforations: none; open hole 4,220–4,853 ft

CURRANT

Source of information: Duey (1983b,d)

Geology

Producing formation: Eocene Sheep Pass Fm.
Trap type: structural (?)
Thickness and lithology of reservoir rock: 380 ft, shaly limestone
Oldest formation penetrated: Devonian Sevy Dol.

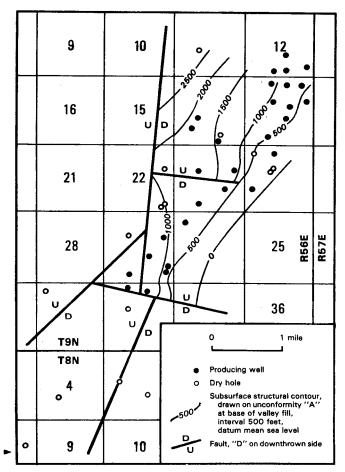
Reservoir data

Productive area: 40 acres (?) Number of producing wells: 0 (The only producer was P & A in 1986) Number of abandoned wells: 1 Number of dry holes: 0 Porosity: 6% Seal: shales in the Tertiary Sheep Pass Fm.

Discovery well

Northwest Exploration Currant No. 1 SE^{1/4}SW^{1/4} sec. 26, T10N, R57E Date of completion: Oct. 21, 1978 Total depth: 7,800 ft Initial production: 10 BOPD Perforations: 6,856-6,994 ft and 7,038-7,080 ft

> FIGURE 12.—Structural contour map of the Trap Spring field (modified from Duey, 1983c, fig. 8).



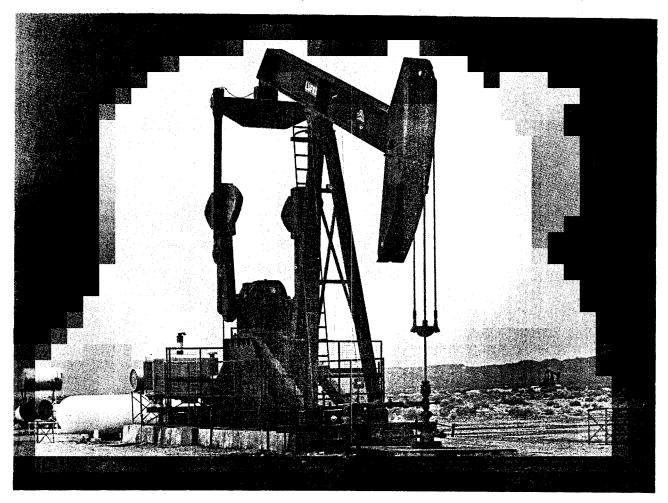


FIGURE 13.—Pumping unit in operation at a Northwest Exploration Co. well in the Trap Springs oil field, Nye County. Laurie Engle photo.

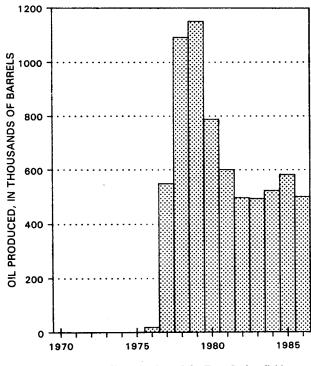


FIGURE 14.—Oil production of the Trap Spring field.

NYE COUNTY (continued)

BACON FLAT (see fig. 15) Source of information: Duey (1983a,d)

Geology Producing formation: Devonian Guilmette Fm.(?) Trap type: structural Thickness and lithology of reservoir rock: 134 ft, dolomite Oldest formation penetrated: Devonian Simonson Dol. Reservoir data Productive area: 160 acres Number of producing wells: 1 Number of abandoned wells: 0 Number of dry holes: 3 Porosity: 8-12% plus fractures Seal: weathered Tertiary ignimbrite above Paleozoic subcrop Vertical oil column: 134 ft + Associated water analysis: Na 1,186, Ca 29, Mg 18, Fe 5.8, Cl 435, HCO₃ 2,183, SO₄ 226 mg/L; R_w 2.3 Ω•m at 68°F Type of drive: water(?) Discovery well Northwest Exploration Bacon Flat No. 1

SW ¹/₄SW ¹/₄ sec. 17, T7N, R57E Date of completion: July 5, 1981 Total depth: 5,450 ft Initial production: 200 BOPD and 1,050 BWPD Perforations: 5,316-5,333 ft

GRANT CANYON (see figs. 16 and 17) Source of information: Herbert D. Duey (written commun., 1986)

Geology

Producing formation: Devonian Simonson Dol. Trap type: structural-stratigraphic Thickness and lithology of reservoir rock: over 300 ft, dolomite Oldest formation penetrated: Devonian Simonson Dol.

Reservoir Data

Productive area: 240 acres Number of producing wells: 3 Number of abandoned wells: 0 Number of dry holes: 3 Porosity: 8–14% Seal: indurated and clayey valley fill Associated water analysis: Na 720, Ca 132, Mg 8, Cl 640, HCO₃ 695, SO₄ 540 mg/L; R_w 2.92 Ω•m at 68°F Type of drive: artesian water

Discovery well

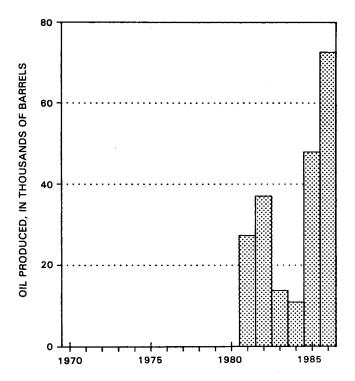
Northwest Exploration Grant Canyon No. 1 SW¹/4NW¹/4 sec. 21, T7N, R57E Date of completion: Sept. 11, 1983 Total depth: 4,487 ft Initial production: flowed 1,816 BOPD; began producing water after about 500,000 barrels of oil were produced Perforations: 4,374-4,392 ft and 4,415-4,448 ft

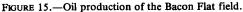
KATE SPRING

Source of information: NBMG files

Geology

Producing formation: Pennsylvanian Ely Ls.





Thickness and lithology of reservoir rock: 100 ft, limestone Oldest formation penetrated: Devonian Guilmette Fm.

Reservoir Data Number of producing wells: 1 (shut in, 1986) Number of abandoned wells: 0 Number of dry holes: 0

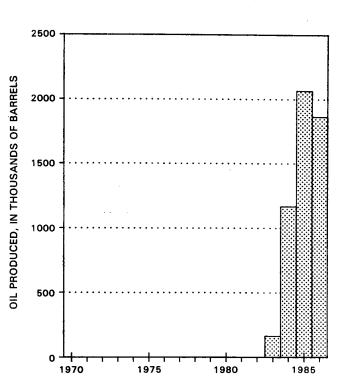
Discovery well Marathon Oil Co. Kate Spring No. 1 W½SW¼ sec. 2, T8N, R57E Date of completion: Jan. 7, 1986 Total depth: 7,501 ft Initial production: 345 BOPD and 1,371 BWPD Perforations: 4,722-4,824 ft

Well Data

AMOCO PRODUCTION CO.

Cuttings

Bullwhacker Springs No. 1 API no.: 27-023-05280 Permit no.: 265 Location: center, NE¹/₄SW¹/₄ sec. 22, T7N, R56E 1,980 ft from south line, 1,980 ft from west line Elevation: 4,708 ft Completed: Oct. 25, 1979 Status: P & A Depth: 9,200 ft Logs: DIL 1,007-9,202 ft CNL/FDC 1,006-9,207 ft BHCS 1,007-9,204 ft TS 116-9,209 ft DM 1,008-9,206 ft Cyberdip 1,010-9,190 ft Fracture identification 6,036-9,205 ft Cyberlook 6,280-9,180 ft Samples:



60-9,200 ft

FIGURE 16.—Oil production of the Grant Canyon field.

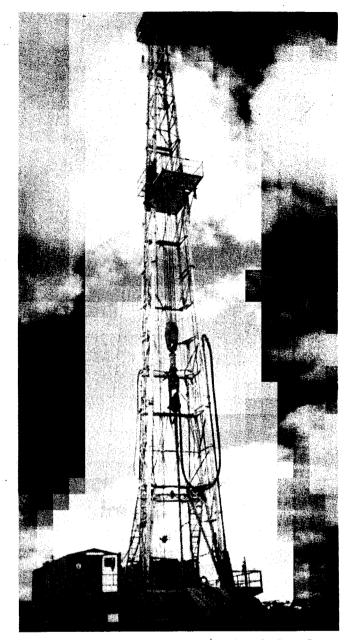


FIGURE 17.-Mapco Oil and Gas Co. drilling rig at the Grant Canyon field in 1984. Scott McDaniel photo.

AMOCO PRODUCTION CO.

Sunnyside Unit No. 1

API no.: 27-023-05385 Permit no.: 478 Location: SE¹/₄SW¹/₄ sec. 19, T6N, R62E 650 ft from south line, 1,200 ft from west line Elevation: 5,300 ft Completed: Aug. 16, 1986 Status: P & A Depth: 6,550 ft Tops: Quaternary valley fill Surface Paleozoic valley fill 1,500 ft Paleozoic sh. 3,700(?) ft 5,930 ft Paleozoic ls.

Lithologic 70-6,550 ft FDC/N/GR 1,510-6,545 ft DLL/MLL 1,510-6,544 ft 1,510-6,535 ft BHCS 1.510-6.535 ft Samples: Cuttings 1,510-6,500 ft

Remarks: Oil shows at 3,614-3,688 ft, 3,728-3,780 ft, 4,160-4,225 ft, 4,434-4,530 ft, and 6,039-6,046 ft. Gas shows reported on DST's at 1,442-1,571 ft and 3,680-3,785 ft

AMOCO PRODUCTION CO.

Logs:

DM

White River Unit No. 3 API no.: 27-023-05327 Permit no.: 371 Location: NW 1/4 SW 1/4 sec. 3, T5N, R61E 1,900 ft from south line, 1,200 ft from west line Elevation: 5,262 ft Completed: June 29, 1984 Status: P & A Depth: 8,700 ft Logs: Lithologic 70-8,700 ft 274-8.680 ft LSS FDC/CNL 6,637-8,687 ft DLL 6,637-8,676 ft CBL/Cal 5,128-6,632 ft CBL 1-2,751 ft Samples: Cuttings 70-8,700 ft Remarks: Oil and gas show between 3,504 and 3,578 ft.

APACHE CORP.

Hot Creek Federal No. 24-13 API no.: 27-023-05294 Permit no.: 302 Location: SW1/4SW1/4 sec. 24, T8N, R50E 500 ft from south line, 650 ft from west line Elevation: 5,729 ft Completed: Apr. 27, 1981 Status: P & A Depth: 11,028 ft Tops: Surface Quaternary valley fill Tertiary volc. 7,060 ft 9,750 ft Paleozoic slump block Tertiary basal volc. 9.960 ft 9,980 ft Devonian Nevada Fm. (unconformity and fault) 10,390 ft fault Logs: Lithologic 600-11,060 ft Directional 7,412-9,708 ft 7,504-9,718 ft DM 7,494-9,700 ft CNL/FDC 450-11,002 ft BHCS 490-7.506 ft Cal TS 30-7,600 ft 487-11,002 ft DI 7,506-9,718 ft FIL Engineered 480-7,520 ft production Samples: 600-11,060 ft Cuttings

Remarks: Gas shows at 8,890-8,892 ft, 8,900-8902 ft, 8,917 ft, 9,017 ft, 9,032 ft, 9,038-9,047 ft, 9,066-9,068 ft, and 9,142-9,148 ft. Dead oil show on flow tests. Gas shows in DST at 8,485-8,600 ft and 8,445-8,600 ft.

APACHE CORP.

Warm Springs Federal No. 10-14 API no .: 27-023-05301 Permit no.: 310 Location: SE¹/4 SW¹/4 sec. 10, T4N, R50E 660 ft from south line, 1,980 ft from west line Elevation: 5.340 ft Completed: June 26, 1981 Status: P & A Depth: 9,180 ft Tops: Surface Quaternary valley fill 4.299 ft Tertiary volc. 8,770 ft Mississippian Eleana Fm. Logs: Lithologic 535-9.180 ft FIL 539-9,166 ft 539-9,165 ft DI BHCS 539-9.169 ft Samples: Cuttings 540-9.183 ft

BTA OIL PRODUCERS

Stone Cabin No. 1 API no.: 27-023-05374 Permit no.: 456 Location: NW 1/4 SE 1/4 NW 1/4 sec. 6, T5N, R48E 1,850 ft from north line, 1,530 ft from west line Elevation: 6,044 ft Completed: Feb. 16, 1986 Status: P & A Depth: 9,815 ft Logs: Lithologic 621-9,800 ft DLL 622-9,789 ft CN/FDC 622-9.801 ft LSS 622-9,793 ft DM 622-9,802 ft Cal 622-9,802 ft Samples: Cuttings 621-9,815 ft Remarks: DST in volcanics returned 180 ft of mud.

BTA OIL PRODUCERS

Stone Cabin No. 2 API no.: 27-023-05375 Permit no.: 457 Location: NE¼SE¼NE¼ sec. 25, T6N, R47E 1,910 ft from north line, 330 ft from east line Elevation: 6,162 ft Completed: Mar. 2, 1986 Status: P & A Depth: 1,184 ft Samples: Cuttings 628-1,184 ft Remarks: DST in volcanics returned 833 ft of fresh water.

BANDINI PETROLEUM CO.

Harris Government No. 1 API no.: 27-023-05018 Permit no.: 15 Location: center, NW^{1/4}NE^{1/4} sec. 25, T10N, R57E 660 ft from north line, 1,980 ft from east line Elevation: 4,990 ft (at KB) Completed: Nov. 26, 1954

Status: P & A Depth: 5,556 ft Tops (from PI): Surface vallev fill 4,320 ft Tertiary volc. 5,550 ft Devonian dol. Logs: Lithologic 0-5,556 ft ES 680-5,532 ft ML 680-5.550 ft GR/N 10-5.553 ft Samples: Core 5,536-5,550 ft Cuttings 40-5,480 ft Remarks: Core descriptions available on 4,509-4,519 ft, 5,269-5,276 ft, and 5,536-5,556 ft at NBMG. **BUCKHORN PETROLEUM CO.** Adobe Federal No. 16-1 API no.: 27-023-05315 Permit no.: 343 Location: SW1/4SE1/4 sec. 1, T6N, R54E 415 ft from south line, 1,459 ft from east line Elevation: 4,749 ft Completed: Oct. 16, 1982 Status: P & A Depth: 3,945 ft Tops: Surface valley fill 804 ft volc. 3,718 ft Mississippian Joana Ls. 3,856 ft Mississippian Pilot Sh. 3,880 ft Devonian Guilmette Fm. Logs: Lithologic 60-3.945 ft DIL/GR 822-3.933 ft BHCS 70-3.930 ft FDC/CNL 822-3,942 ft DM 827-3,943 ft DLL 3,600-3,930 ft Cyberlook 3,700-3,930 ft Samples: Cuttings 60-3,930 ft Remarks: Oil and gas show at 1,240-1,250 ft. Gas show at 3,719-3,720 ft. Oil show at 3,877-3,883 ft. Oil show in DST at 1,218-1,312 ft. **BUCKHORN PETROLEUM CO.** Chuckwagon Federal No. 10-14 API no .: 27-023-05316 Permit no.: 345 Location: NE¹/₄NW¹/₄SE¹/₄ sec. 14, T5N, R54E 2,200 ft from south line, 1,800 ft from east line Elevation: 4,814 ft Completed: Nov. 22, 1981 Status: P & A Depth: 7,000 ft Tops: Surface Quaternary valley fill 792 ft Tertiary volc. Logs: Lithologic 106-7,000 ft 805-6.994 ft DIL/GR 805-6,997 ft CNL BHCS 805-6,965 ft FIL 805-6,998 ft DM 805-6.997 ft

90-7,000 ft

Samples:

Cuttings

Remarks: Extensive water flows at 807-836 ft (200 GPM). Gas show at 1,512-1,570 ft. Oil shows at 2,376-2,395 ft and 4,776-4,834 ft.

BULLWACHER OIL, INC.

Bullwhacker No. 1 API no.: 27-023-05328 Permit no.: 372 Location: NW1/4NW1/4NE1/4 sec. 28, T7N, R57E 331 ft from north line, 2,308 ft from east line Elevation: 4,746 ft Completed: Apr. 18, 1984 Status: P & A Depth: 4,582 ft Tops: **Ouaternary** valley fill Surface quartz monzonite 4,233 ft Logs: 436-4,582 ft Lithologic DI/GR/Cal 432-4.572 ft FDC/CNL/GR/Cal 432-4,539 ft 432-4,564 ft BHC/GR/CAL 432-4,570 ft DM 432-4,570 ft Directional Samples: 430-4,582 ft Cuttings Remarks: Oil show at 3,790-4,186 ft; gas show at 3,985-4,100 ft.

CELSIUS ENERGY CO.

Duckwater Federal No. 9-1 API no.: 27-023-05359 Permit no.: 419 Location: SE¹/₄ sec. 9, T12N, R57E 1,320 ft from south line, 1,520 ft from east line Elevation: 5,621 ft Completed: Dec. 23, 1984 Status: P & A Depth: 7,115 ft Tops: Quaternary alluvium Surface Tertiary Shingle Pass Tuff 2.127 ft Tertiary Needles Range Fm. 2,690 ft Tertiary Window Butte Fm. 3.890 ft Tertiary Currant Tuff 4,918 ft Tertiary Railroad Valley Rhyolite 4,918 ft Eocene Sheep Pass Fm. 6.093 ft Mississippian Scotty Wash Qtz. 6.510 ft Mississippian Chainman Sh. 6,714 ft Logs: Lithologic/FDC/CNL 590-7,090 ft 598-7,080 ft FIL 602-7,084 ft DI 602-7,090 ft BHCS 598-7,079 ft DM Samples: 601-7.120 ft Cuttings Remarks: Slight oil show at 4,315-4,333 ft and 6,357-6,367 ft. CHADCO, INC.

Britton No. 13-21 API no.: 27-023-05258

Permit no.: 224 Location: center, NE¼NW¼ sec. 13, T9N, R56E 660 ft from north line, 1,980 ft from west line

Elevation: 4.780 ft Completed: Apr. 17, 1978 Status: Producer Field: Trap Spring Depth: 4,259 ft Logs: ĎI 429-4.259 ft BHCS/Cal 3,600-4,256 ft FIL 2,000-4,258 ft GR/N 2,500-4,175 ft Samples: Cuttings 200-4,260 ft Remarks: Oil zone at 3,976-4,140 ft in Tertiary volcanics. DST's at 3.958-4.030 ft and 4.010-4.130 ft had oil shows. This well initially produced 50 BOPD. CHADCO. INC. Pennington No. 22-1 API no.: 27-023-05230 Permit no.: 193 Location: SE¹/₄NE¹/₄ sec. 22, T9N, R56E Elevation: 4,770 ft Completed: May 23, 1977 Status: P & A Depth: 4,840 ft Tops: 3,484 ft Garrett Ranch Volc. (from PI) Logs: 285-4.831 ft DII. BHCS 2.000-4.830 ft CHADCO, INC. Zuspann No. 24-1 API no.: 27-023-05235 Permit no.: 198 Location: center, NW1/4SW1/4 sec. 24, T9N, R56E 1,980 ft from south line, 660 ft from west line Elevation: 4,766 ft Completed: June 19, 1977 Status: Producer Field: Trap Spring Depth: 4,944 ft Tops: **Ouaternary** valley fill Surface Tertiary volc. (from PI) 4,854 ft Logs: 400-4,934 ft DIL BHCS/GR 2,800-4,930 ft 4,400-4,940 ft FIL Remarks: Oil zone at 4,885-4,944 ft (volc.?). DST at 4,885-4,950 ft had an oil show. This well initially produced 750 BOPD. CHADCO, INC. Zuspann No. 24-3 API no .: 27-023-05244 Permit no.: 208 Location: center, NE¹/₄NW¹/₄ sec. 24, T9N, R56E 660 ft from north line, 1,980 ft from west line Elevation: 4,767 ft Completed: Sept. 29, 1977 Status: Producer Field: Trap Spring Depth: 4,702 ft Tops:

Quaternary valley fill

420-4,698 ft

50

Surface

Logs:

DIL

BHCS Samples:

Cuttings 0-4,700 ft

Remarks: Oil zone at 4,599-4,702 ft (Garrett Ranch Volc.). DST at 4,595-4,700 ft had an oil show. This well initially produced 358 BOPD.

DIVERSIFIED OPERATING CORP.

D.O.C. Federal No. 5-18 API no.: 27-023-05386 Permit no.: 480 Location: SW1/4NW1/4 sec. 18, T5N, R55E 2,041 ft from north line, 386 ft from west line Elevation: 4.813 ft Completed: Nov. 11, 1986 (?) Status: P & A Depth: 5,813 ft (?) Tops: 1.531 ft volc. 5.667 ft dol. Logs: 5,014-5,724 ft DM CNL/FDC 4,990-5,724 ft BHCS 1,560-5,786 ft DLL 1,560-5,786 ft Samples: Cuttings 1.570-5.818 ft

Remarks: Minor gas show in sampler on DST at 5,171-5,725 ft. Oil show in dolomite. This well is sometimes called the Chuckwagon Federal No. 5-18.

FERGUSON & BOSWORTH AND ASSOCIATES (TEXACO, INC.)

Munson Ranch No. 11-23

API no .: 27-023-05267 Permit no.: 244 Location: center, NE^{1/4}SW^{1/4} sec. 11, T9N, R56E 1,980 ft from south line, 1,980 ft from west line Elevation: 4,820 ft Completed: Dec. 21, 1978 Status: P & A Depth: 5,020 ft Tops: Surface Quaternary valley fill 2.140 ft Tertiary welded tuff Logs: Lithologic 400-5,020 ft DI 385-5,018 ft BHCS 341-5,016 ft

Samples: Cuttings

400-5,020 ft (incomplete)

Remarks: Ownership transfered to Western Avenue Properties in 1983. Several oil shows were reported from 2,140-3,700 ft. A gas show was reported in a DST at 2,563-2,677 ft.

GOSE, STEVE

Government No. 1 API no.: 27-023-05080 Permit no.: 81 Location: SE¼NE¼ sec. 36, T9N, R57E 2,145 ft from north line, 825 ft from east line Elevation: 4,836 ft Completed: Apr. 3, 1967 Status: Redrilled Depth: 6,048 ft Tops (from PI): Surface Quaternary valley fill 5,390 ft Eocene Sheep Pass(?)

5,407 ft 5,627 ft	unconformity "A"	
Logs:	Paleozoic	
Lithologic	545-6.045 ft	

Remarks: See Western Oil Lands, Inc. Pennington No. 7 well for information on their redrill of this well.

GULF OIL CORP.

Anderson D. Federal No. 1 API no.: 27-023-05202 Permit no.: 113 Location: NW 1/4 SW 1/4 sec. 10, T7N, R56E 1,980 ft from south line, 660 ft from west line Elevation: 4.708 ft Completed: Dec. 23, 1967 Status: P & A Depth: 7,120 ft Tops: Surface valley fill 4,766 ft Tertiary volc. 6,926 ft Paleozoic dol. Logs: Lithologic 0-5,400 ft DIL 485-7,111 ft FDL 485-7,111 ft BHCS 0-7,109 ft

GULF OIL CORP.

Duck Unit No. 1 API no.: 27-023-05061 Permit no.: 106 Location: center, SE¹/₄SW¹/₄ sec. 5, T6N, R56E 664 ft from south line, 1,990 ft from west line Elevation: 4,716 ft Completed: July 21, 1967 Status: P & A Depth: 6,553 ft Tops: Surface **Ouaternary** valley fill 5,016 ft Tertiary volc. 5,276 ft Mississippian Chainman Sh. 6,354 ft Mississippian Joana Ls. Logs: Lithologic 40-6,553 ft DIL 504-6,556 ft BHCS/GR 503-6,555 ft ML/Cal 503-6,556 ft FDC/GR 505-6.556 ft Remarks: Source rock analysis on 5,270-5,530 ft and 6,100-6,354 ft available at NBMG.

GULF OIL CORP.

Duck Unit No. 2 API no.: 27-023-05062 Permit no.: 108 Location: center, SW1/4SW1/4 sec. 1, T6N, R55E 660 ft from south line, 660 ft from west line Elevation: 4,729 ft Completed: Aug. 8, 1967 Status: P & A Depth: 4,130 ft Tops: Surface Quaternary valley fill 3,505 ft Paleozoic Logs: Lithologic 10-4,130 ft BHCS/GR 510-4,128 ft DIL 510-4,131 ft



FDC/GR	512–4,135 ft
ML/Cal	513–4,136 ft
GULF OIL COR	Ρ.
Duck Unit No. 3	
API no.: 27-023-0	15200
Permit no.: 111	
Location: NE ¹ /4S	E ¹ / ₄ SE ¹ / ₄ sec. 6, T6N, R57E
	th line, 572 ft from east line
Elevation: 4,777 f	
Completed: Nov.	17, 1967

Depth: 3,138 ft Tops: Ouaternary valley fill Surface Paleozoic dol. 2.730 ft igneous rock 3,138 ft Logs: 262-3,114 ft BHCS/GR 264-3,122 ft FDL/GR 263-3,126 ft ML/Cal 264-3.122 ft DI

GULF OIL CORP.

Status: P & A

Gose "BZ" Federal "A" No. 1 API no.: 27-023-05209 Permit no.: 124 Location: center, SE1/NW1/4 sec. 4, T7N, R62E 1,980 ft from north line, 1,980 ft from west line Elevation: 5,365 ft Completed: Sept. 29, 1968 Status: P & A Depth: 7,000 ft Tops: valley fill Surface Pennsylvanian Ely Ls. 5,580 ft Mississippian Diamond Peak Fm. 6,104 ft Mississippian Chainman Sh. 6,450 ft 6,590 ft fault and unknown quartzite Logs: 100-7,000 ft Lithologic 508-7,000 ft DI/ES/LL 0-7,089 ft BHCS/GR 2,100-7,000 ft **BHS-Density** 2,150-7,000 ft SNP

GULF OIL CORP.

Gose "CD" Federal No. 1 API no.: 27-023-05211 Permit no.: 126 Location: center, SW 1/4 SW 1/4 sec. 30, T10N, R62E Elevation: 5,469 ft Completed: Nov. 5, 1968 Status: P & A Depth: 4,092 ft Tops: Ouaternary valley fill Surface Eocene Sheep Pass Fm. 1,203 ft Pennsylvanian Ely Lm. 1.695 ft Mississippian Chainman Sh. 3,143 ft Logs: 50-4,100 ft Lithologic 514-4,093 ft IES 514-4,093 ft BHCS/GR 514-4,093 ft SNP 514-4,093 ft FDL

GULF OIL CORP.

Gose "DL" Federal No. 1 API no.: 27-023-05207 Permit no.: 119 Location: SE¼SE¼SW¼ sec. 17, T8N, R62E 83 ft from south line, 2,580 ft from west line Elevation: 5,437 ft Completed: July 22, 1968 Status: P & A Depth: 7,067 ft Tops: 3,964 ft Tertiary volc. Pennsylvanian Ely Ls. 6.543 ft Logs: 634-7.067 ft IES BHCS/GR 30-7.067 ft 634-7,067 ft SNP/Cal 634-7,067 ft FDC **GULF OIL CORP.** Gose "EU" Federal No. 1 API no.: 27-023-05210 Permit no.: 125 Location: center, SW 4SE 4 sec. 33, T6N, R61E 660 ft from south line, 1,980 ft from east line Elevation: 5,202 ft Completed: Oct. 14, 1968 Status: P & A Depth: 5,690 ft Tops: Surface

Quaternary valley fill Tertiary volc. Pennsylvanian Ely Ls. Mississippian Chainman Sh. 80-5,690 ft Lithologic

- 28-5,553 ft BHCS/GR 488-5,553 ft SNP 488-5,553 ft DI/LL 488-5,553 ft FDI. Remarks: Source rock analysis for 4,070-4,270 ft and 5,490-5,690 ft available at NBMG. 700 ppm Cl⁻ was
- reported in water from 3,908-4,017 ft in the Ely Ls.

GULF OIL CORP.

375 ft

2,950 ft

4,070 ft

Logs:

Gose "FQ" Federal No. 1 API no.: 27-023-05206 Permit no.: 118 Location: SE1/4SW1/4 sec. 7, T6N, R62E 1,131 ft from south line, 1,726 ft from west line Elevation: 5,283 ft Completed: June 22, 1968 Status: P & A Depth: 3,980 ft Tops: Ouaternary valley fill Surface Tertiary volc. 2,927 ft Pennsylvanian Ely Ls.(?) 3,782 ft Logs: 50-3,980 ft Lithologic 623-3,980 ft IES 0-3,980 ft BHCS/GR 632-3,980 ft FDL 2,700-3,980 ft SNP

GULF OIL CORP. Nevada "DK" Federal No. 1 API no.: 27-023-05208

Permit no.: 122 Location: center, NE¹/₄NW¹/₄ sec. 17, T7N, R57E 660 ft from north line, 3,306 ft from east line Elevation: 4,717 ft Completed: Aug. 30, 1968 Status: P & A Depth: 7,188 ft Tops: Surface **Ouaternary** valley fill 6,294 ft Pennsylvanian Ely Ls. 6,990 ft Mississippian Chainman Sh. Logs: Lithologic 300-7.190 ft DIL 579-7.196 ft BHCS/GR/Cal 779-7,196 ft FDC 579-7,196 ft

GULF OIL CORP.

Nyala Unit No. 1 API no.: 27-023-05063 Permit no.: 105 Location: E1/2NW 1/4 SE1/4 sec. 29, T5N, R55E 1,971 ft from south line, 1,980 ft from east line Elevation: 4,809 ft Completed: June 11, 1967 Status: P & A Depth: 7,780 ft Logs: BHCS/GR 474-7,771 ft ML 3,100-7,773 ft IES 474-7,773 ft FDL 474-7,771 ft Lithologic 90-7.780 ft **GULF OIL CORP.**

Russell-Federal No. 1 API no.: 27-023-05213 Permit no.: 128 Location: center, SE¼NE¼ sec. 9, T9N, R61E 1,980 ft from north line, 660 ft from east line Elevation: 5,324 ft Completed: Nov. 12, 1968 Status: P & A Depth: 6,150 ft Tops: Surface valley fill 3,700 ft volc. 5,528 ft Paleozoic(?) Logs: Lithologic 200-6,150 ft 559-6.136 ft DIL BHCS/GR 559-6.137 ft SNP 3.500-6.137 ft FDL 3,500-6,137 ft

GULF OIL CORP.

Standard of California Federal No. 1 API no.: 27-023-05215 Permit no.: 130 Location: center, SE¹/₄NE¹/₄ sec. 33, T8N, R61E 1,980 ft from north line, 660 ft from east line Elevation: 5,255 ft Completed: Jan. 12, 1968 Status: P & A Depth: 4.350 ft Tops (from American Stratigraphic Co.): Quaternary valley fill Surface Tertiary volc. 1,465 ft

3.215 ft Eocene Sheep Pass Fm. 3.400 ft Pennsylvanian Ely Ls.(?) 3.728 ft Mississippian Chainman Sh. Logs: Lithologic 100-4,250 ft DIL 596-4.342 ft BHCS/GR 0-4,336 ft FDL 596-4,345 ft SNP 1,280-4,346 ft Remarks: Ely Ls. top also reported as 3,215 ft, and other tops reported for Mississippian rocks. HARPER OIL CO.

Big Smoke No. 14-20 API no.: 27-023-05372 Permit no.: 453 Location: SE¹/4 SW¹/4 sec. 20, T13N, R44E 660 ft from south line, 1,800 ft from west line Elevation: 5.455 ft Completed: Nov. 3, 1985 Status: P & A Depth: 5,210 ft Tops: Surface Quaternary valley fill 3,120 ft Cambrian qtz. and sh. (to TD) 4,760 ft fault Logs: Lithologic 0-5,210 ft DM 764-5,208 ft TS 613-5,205 ft CNL/FDC 722-5,205 ft DLL 722-5,207 ft BHCS 722-5,196 ft Samples: Cuttings 500-5,210 ft

HARPER OIL CO.

Grant Canvon No. 6 API no.: 27-023-05351 Permit no.: 401 Location: center, SW ¼ SE ¼ sec. 17, T7N, R57E 660 ft from south line, 1,980 ft from east line Elevation: 4,728 ft Completed: Aug. 25, 1985 Status: P & A Depth: 6,260 ft Tops: 1.621 ft Ouaternary rhyolite flow 5,056 ft Tertiary volc. 5,262 ft Tertiary valley fill 5,611 ft Pennsylvanian Ely Ls. Mississippian Chainman Sh. 6.020 ft 6,170 ft Devonian Simonson Dol. Logs: Lithologic 400-6,260 ft FDC 400-6,262 ft 400-6,250 ft MLL BHCS 400-6,259 ft DM 400-6,262 ft Samples: 400-6,260 ft Cuttings Remarks: Oil shows at 2,200-2,620 ft and 5,030-5,060 ft. Gas

show at 6,220-6,260 ft.

HARPER OIL CO.

North Munson Ranch No. 14-6 API no.: 27-023-05378 Permit no.: 465

Location: SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T9N, R57E 660 ft from south line, 1,980 ft from west line Elevation: 4,794 ft Completed: Feb. 4, 1986 Status: P & A Depth: 4,423 ft Logs: DL/MLL 310-4,423 ft S 4,282-4,412 ft Samples:

Cuttings 310-4,290 ft Remarks: Water zone at 4,293 ft flowed a 4-inch stream at approximately 150°F.

HARPER OIL CO.

Nyala No. 1 API no.: 27-023-05336 Permit no.: 381 Location: NW 1/4 NE 1/4 sec. 20, T5N, R55E 660 ft from north line, 1,980 ft from east line Elevation: 4,799 ft Completed: July 6, 1984 Status: P & A Depth: 4,311 ft Tops: Quaternary valley fill Surface Tertiary volc. 3,243 ft Samples: 0-2,000 ft (incomplete) Cuttings Remarks: This well P & A due to lost circulation.

HARPER OIL CO.

Nyala No. 1-R API no.: 27-023-05336-R Permit no.: 381 Location: NW 1/4 NE 1/4 sec. 20, T5N, R55E 735 ft from north line, 1,980 ft from east line Elevation: 4,818 ft Completed: Aug. 28, 1984 Status: P & A Depth: 5,676 ft Tops: Tertiary volc. 2,993 ft Paleozoic 4,340 ft Logs: 714-4,251 ft DIL/GR/Cal 714-4,221 ft LSS 4,267-5,525 ft DM 4,257-5,662 ft BHCS

Remarks: This is a redrill of Harper Oil Co. Nyala No. 1. Rig was skidded 75 ft.

HARPER OIL CO.

Nyala No. 6-22-5-55 API no.: 27-023-05377 Permit no.: 464 Location: SE1/4NW1/4 sec. 22, T5N, R55E 1,600 ft from north line, 1,600 ft from west line Elevation: 4,783 ft Completed: Mar. 8, 1986 Status: P & A Depth: 8,306 ft Tops: Quaternary valley fill Surface Tertiary volc. 4,591 ft Eocene Sheep Pass Fm. 5,852 ft

Logs: Cyberlook DM DLL LSS CNL/FDC Samples: Cuttings

4,804-8,275 ft 500-8,306 ft

7.300-8.293 ft

2,800-8,307 ft

464-8,293 ft

464-8.293 ft

HUSKY OIL CO.

Big Meadow Unit No. 1 API no.: 27-023-05325 Permit no.: 369 Location: NE¹/4SW¹/4 sec. 33, T6N, R56E 1,980 ft from south line, 1,980 ft from west line Elevation: 4,754 ft Completed: Mar. 31, 1984 Status: P & A Depth: 4,986 ft Logs: 54-4.983 ft Lithologic 392-4,965 ft DLL 392-4,918 ft CNL/FDC 392-4,914 ft S 392-4,913 ft DM 400-4,900 ft GR 392-4,914 ft Waveforms Samples: 0-4,988 ft Cuttings Remarks: Acquired by Marathon Oil Co. in May 1984. Core analysis available at NBMG for 4,314-4,344 ft with a fluid oil show at 4,331-4,334 ft. HUSKY OIL CO.

Highway Unit No. 1 API no.: 27-023-05334 Permit no.: 379 Location: NW 1/4 NE 1/4 sec. 12, T8N, R55E 660 ft from north line, 1,980 ft from east line Elevation: 4,783 ft Completed: May 18, 1984 Status: P & A Depth: 3,040 ft Tops: Quaternary valley fill Surface Tertiary volc. (to TD) 798 ft Logs: 58-3.040 ft Lithologic 404-3,026 ft DLL 404-3,038 ft CNL/FDC 404-3,005 ft GR 404-3,041 ft DM 404-3,055 ft LSS Samples: 58-3.040 ft Cuttings Remarks: Operator now Marathon Oil Co.

HUSKY OIL CO.

South Trap Spring No. 1 API no.: 27-023-05326 Permit no.: 368 Location: SE¼SW¼ sec. 9, T8N, R56E 660 ft from south line, 1,880 ft from west line Elevation: 4,725 ft Completed: May 9, 1984 Status: P & A Depth: 4,319 ft Logs: Lithologic 58-4,319 ft DLL 463-4,302 ft CNL/FDC 463-4,314 ft BHCS 463-4,305 ft GR 463-4,282 ft DM 463-4,316 ft Samples:

Cuttings 58-4,319 ft Remarks: Core analysis for 3,034-3,046 ft available at NBMG. Operator now Marathon Oil Co.

HUSKY OIL CO.

Willow Spring No. 1 API no.: 27-023-05323 Permit no.: 365 Location: SE¼NE¼ sec. 1, T6N, R56E 2,050 ft from north line, 900 ft from east line Elevation: 4,704 ft Completed: Apr. 24, 1984 Status: P & A Depth: 4,715 ft Tops: Surface Ouaternary valley fill 1,250 ft Tertiary volc. 1,820 ft cgl. Logs: Lithologic 56-4,714 ft DLL 352-4.077 ft CNL/FDC 1,400-4,688 ft TS 300-4,000 ft GR 3,800-4,656 ft Waveform 352-4,081 ft 352-4,081 ft S Samples:

Cuttings 60-4,714 ft Remarks: Core analysis for 4,100-4,106 ft available at NBMG. Operator now Marathon Oil Co.

JAYHAWK EXPLORATION, INC.

Koch No. 2-29 API no.: 27-023-05353 Permit no.: 405 Location: SE¹/₄NW¹/₄ sec. 19, T11N, R57E 1,980 ft from north line, 1,980 ft from west line Elevation: 4,994 ft Completed: Oct. 31, 1984 Status: P & A Depth: 6,886 ft Tops: 3,000 ft Eocene Sheep Pass Fm. 3,875 ft Mississippian Chainman Sh. 4,000 ft Mississippian Joana Ls. Logs: Lithologic 590-6,886 ft DLL 550-6,815 ft BHCS 550-6,808 ft 550-6,812 ft Density/CNL 4,610-6,830 ft DM Samples: Cuttings 590-6.710 ft

KOCH EXPLORATION CO.

Tom Spring No. 2-C API no.: 27-023-05259 Permit no.: 229 Location: NE¹/₄SW¹/₄ sec. 3, T8N, R57E 1,980 ft from south line, 2,480 ft from west line *Elevation:* 4,737 ft *Completed:* Mar. 27, 1978 *Status:* P & A *Depth:* 8,500 ft *Logs:* Lithologic 750-8,500 ft DIL 737-8,334 ft BHCS 737-8,332 ft *Samples:* Cuttings 970-8,500 ft *Remarks:* Oil shows at 5,225-5,300 ft.

MAPCO OIL & GAS CO.

Grant Canyon No. 2 API no.: 27-023-05330 Permit no.: 374 Location: SW 1/4 NE 1/4 sec. 21, T7N, R57E 1,980 ft from north line, 1,980 ft from east line Elevation: 4,740 ft Completed: July 13, 1984 Status: P & A Depth: 6,389 ft Tops: Surface Ouaternary valley fill 4,765 ft Mississippian Joana Ls. 6,353 ft quartz monzonite Logs: 393-6,889 ft Lithologic **GR/FDC/CNL** 392-4.840 ft DIL 392-6.395 ft DM 500-6,147 ft BHCS 392-6,385 ft CBL 3,392-4,766 ft Samples: 393-6,390 ft Cuttings Remarks: Original permit was under Northwest Exploration Co. Trace oil shows were reported.

MAPCO OIL & GAS CO.

Grant Canyon No. 3 API no.: 27-023-05331 Permit no.: 375 Location: center, SW1/4SW1/4 sec. 16, T7N, R57E 660 ft from south line, 660 ft from west line Elevation: 4,737 ft Completed: Aug. 19, 1984 Status: Producer Field: Grant Canyon Depth: 4,302 ft Tops: Surface vallev fill Devonian Simonson Dol.(?) 3.917 ft Logs: Lithologic 400-4,040 ft 392-3,949 ft DLL/ML BHCS 392-3,957 ft DI 3,931-4,297 ft LSS 3,931-4,300 ft FIL 3,931-4,300 ft CNL/FDC 392-4,300 ft 3,931-4,300 ft DM Samples: 390-4,040 ft Cuttings

Remarks: Currently operated by Apache Corp., formerly by Harper Oil Co. Producing interval at 3,930-4,302 ft. Producing formation is Devonian. DST at 3,934-3,961 ft had an oil show. This well initially flowed 2,272 BOPD.

MAPCO OIL & GAS	CO.	
Grant Canyon No. 4		
API no.: 27-023-05332		
Permit no.: 376		
Location: S ¹ / ₂ NE ¹ / ₄ NW	1/ and 11 TTN DETE	
	74 sec. 21, 17N, K5/E e, 1,980 ft from west line	
<i>Elevation:</i> 4,737 ft	e, 1,960 it from west line	
Completed: July 11, 19	04	
Status: Producer	04	
Field: Grant Canyon		
Depth: 4,220 ft		
<i>Tops:</i>		
Surface	Quaternary valley fill	
4,020 ft	Devonian Guilmette Ls.	
Logs:	Devoluar Guimette Es.	
Lithologic	413-4,224 ft	
CNL/FDC	400-4,185 ft	
BHCS	400–4,180 ft	
DM	3,753-4,188 ft	
DIL	400-4,183 ft	
TS	22-4.171 ft	
CBL	3,197-4,163 ft	
Samples:		
Cuttings	410-4,220 ft	
Remarks: Production a	at 4,030-4,130 ft, "Devonian undif-	
ferentiated', and at	4,144-4,170 ft, Simonson (?). Cur-	
rently operated by	Apache Corp., formerly by Harper	
Oil Co. DST at 4,034-4,087 ft had an oil show. This well		
initially flowed 1,986	BOPD.	
MARCO OIL & CAS		
MAPCO OIL & GAS C		
Grant Canyon No. 5		
API no.: 27-023-05350		

Permit no.: 400 Location: E1/2NE1/4 sec. 20, T7N, R57E 1,320 ft from north line, 660 ft from east line Elevation: 4,718 ft Completed: Aug. 21, 1984 Status: TA Depth: 4,804 ft Tops: Surface Ouaternary valley fill 4,458 ft Devonian Guilmette Ls. Logs: Lithologic 420-4,750 ft DIL/GR/SP/Cal 395-4,792 ft LSS/GR/Cal 395-4,761 ft FDC/CNL/GR/Cal 395-4,798 ft FIL/GR/Dev 395-4,798 ft GR 4,452-4,778 ft Samples: 395-4.748 ft Cuttings

Remarks: Oil shows at 2,110-2,259 ft, 3,130-3,310 ft, and 4,470-4,750 ft. Now being considered as a water-disposal well. Ouestionable oil and gas shows in the DST at 4,548-4,648 ft. Currently operated by Apache Corp.

MAPCO OIL & GAS CO.

Grant Canyon No. 8 API no.: 27-023-05358 Permit no.: 414 Location: center, SW1/4SE1/4 sec. 16, T7N, R57E 660 ft from south line, 1,980 ft from east line Elevation: 4,750 ft Completed: Dec. 21, 1984 Status: P & A

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Depth: 7,044 ft
Tops:
  5,040 ft
                       Tertiary weathered ignimbrite
  5,238 ft
                       Eocene Sheep Pass Fm. (sh.)
  5.562 ft
                       Eocene Sheep Pass Fm.
                          (1st carbonate)
  6,059 ft
                       Eocene Sheep Pass Fm.
                         (2nd sh.)
  6,244 ft
                       Eocene Sheep Pass Fm.
                         (2nd carbonate)
  6.604 ft
                       Mississippian(?) Joana Ls.
Logs:
  Lithologic
                       480-7.044 ft
  DIL/GR/SP
                       408-6,914 ft
  CNL/GR/Cal
                       408-6,918 ft
  FIL
                       4,900-6,920 ft
Samples:
  Cuttings
                       414-7.040 ft
Remarks: Oil and gas shows at 1,800-2,010 ft and 5,554-5,570
  ft
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MAPCO OIL & GAS CO.

Thorn No. 1 API no.: 27-023-05338 Permit no.: 384 Location: SW 1/4 NW 1/4 sec. 22, T7N, R57E 1.980 ft from north line, 600 ft from west line Elevation: 4,809 ft Completed: Sept. 26, 1984 Status: P & A Depth: 5,584 ft Tops: Surface Quaternary valley fill 5,347 ft gabbro and quartz monzonite Logs: Lithologic 385-5,583 ft DIL/GR 292-5,039 ft BHCS/GR 293-5,004 ft Samples: Cuttings 385-5,584 ft

Remarks: Oil shows at 290-385 ft and 5,160-5,220 ft.

MAPCO OIL & GAS CO.

Trap Spring No. 17-R API no.: 27-023-05361 Permit no.: 422 Location: center, NW1/4NE1/4 sec. 23, T9N, R56E 660 ft from north line, 1,980 ft from east line Elevation: 4,763 ft Completed: Feb. 2, 1985 Field: Trap Spring Status: Producer (TA) Depth: 4,379 ft Tops (measured from KB): Surface Quaternary valley fill 3.195 ft Tertiary caprock 3.292 ft Tertiary Windous Butte Fm. 3.380 ft Tertiary tuff of **Prichards Station** Tertiary Stone Cabin Fm. 4,032 ft Logs: Lithologic 420-4,379 ft Cyberlook 3.370-4.325 ft DIL 394-4,323 ft CNL/FDC 394-4,325 ft LSS 392-4,318 ft DM 394-4,220 ft GR 3,377-4,290 ft FIL 394-4,220 ft

Samples:

Cuttings 392-4,379 ft Remarks: Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 3,497-3,600 ft, 3,788-3,879 ft, 3,881-3,972 ft, 3,973-4,097 ft, 4,097-4,191 ft, 4,190-4,284 ft, and 4,285-4,379 ft, had oil shows.

MARATHON OIL CO.

Beaty Canvon No. 1 API no.: 27-023-05347 Permit no.: 396 Location: NE^{1/4}SE^{1/4} sec. 34, T8N, R57E 2,310 ft from south line, 1,100 ft from east line Elevation: 4,768 ft Completed: Sept. 28, 1984 Status: P & A Depth: 5,198 ft Logs: DIL 3,000-3,454 ft DLL 542-5,146 ft FDL/DM 3,000-5,150 ft CNL/FDL 2,970-5,162 ft S 530-5,150 ft Samples: 70-5,198 ft Cuttings Remarks: Originally Husky Oil Co.

MARATHON OIL CO.

Currant Creek Unit No. 1 API no.: 27-023-05333 Permit no.: 378 Location: center, SE¼SW¼ sec. 26, T11N, R57E 660 ft from south line, 1,980 ft from west line Elevation: 5,010 ft Completed: Nov. 20, 1984 Status: P & A Depth: 4.915 ft Tops: Surface Ouaternary valley fill 3,300 ft Eocene Sheep Pass Fm. 3,844 ft Mississippian Chainman Sh. Logs: DLL/GR 4,115-4,848 ft BHCS 4.115-4.800 ft FDL/CNL 4,115-4,852 ft TS 10-4,192 ft CBL 2,992-4,010 ft Samples: Cuttings 604.915 ft Remarks: Originally Husky Oil Co.

MARATHON OIL CO.

Duckwater Creek No. 1 API no.: 27-023-05335 Permit no.: 380 Location: center, NW1/4SE1/4 sec. 2, T10N, R56E 1,980 ft from south line, 1,980 ft from east line Elevation: 5,036 ft Completed: Oct. 18, 1984 Status: P & A Depth: 6,000 ft Tops: 668 ft Tertiary volc. 4,370 ft Mississippian Chainman Sh. 4,508 ft Mississippian Joana Ls. 4,585 ft Mississippian Pilot Sh. 4,682 ft Devonian Guilmette Ls.

Logs:

Lithologic 75-6,000 ft FIL 4,996-5,990 ft GR 4.150-5,181 ft CNL/FDC 4,150-5,990 ft S 450-5.982 ft DLL/ML 558-5,980 ft DLL 558-4,646 ft Samples: Cuttings 58-6,000 ft Remarks: Originally Husky Oil Co.

MARATHON OIL CO.

Kate Spring No. 1 API no.: 27-023-05365 Permit no.: 436 Location: center, W1/2SW1/4 sec. 2, T8N, R57E 1,320 ft from south line, 660 ft from west line Elevation: 4,742 ft Completed: Jan. 7, 1986 Status: Shut in Field: Kate Spring Depth: 7,501 ft Tops: Surface Quaternary valley fill Pennsylvanian Ely Ls. 4,520 ft 6.520 ft Mississippian Chainman Sh. 7.200 ft Mississippian Joana Ls. 7.420 ft Devonian Guilmette Ls. Logs: FIL 4,864-7,495 ft DM 4.864-7.495 ft DLL/ML 4,864-7,487 ft BHCS 4,864-7,497 ft CBL 3,490-4,814 ft Directional 4,864-7,495 ft CN/FDC 4,864-7,495 ft GR 3,400-7,495 ft Samples:

Cuttings 60-7,500 ft Remarks: In 24-hour test, well flowed 345 BOPD, 1,371 BWPD. API gravity 10.5°. Producing interval 4,722-4,824 ft in Ely Ls. DST 4,482-4,529 ft had an oil show, DST 4,530-4,635 ft reported tar in sample chamber, DST 4,530-4,625 ft had an oil and gas show. Well plugged back to 4,850 ft.

MARATHON OIL CO.

Munson Ranch No. 13-1 API no.: 27-023-05364 Permit no.: 435 Location: center, SE¼NW¼ sec. 13, T9N, R56E 1,980 ft from north line, 1,980 ft from west line Elevation: 4,777 ft Completed: Aug. 26, 1985 Status: Temporarily shut in Field: Trap Spring Depth: 4,199 ft (from KB) Logs: GR 25-3,643 ft Computer processed 1,850-3,780 ft Directional 3,400-3,806 ft LSS 525-3,802 ft DM 3,400-3,806 ft DI 525-4000 ft Samples: Cuttings 70-4,199 ft

Remarks: Oil zone at 4,100-4,199 ft. Initial production of 81 BOPD. Core report available for 4,118-4,124 ft (tuff of Pritchards Station).

MARATHON OIL CO.

Reynolds Springs No. 1 API no.: 27-023-05380 Permit no.: 468 Location: SE¹/4 SE¹/4 sec. 33, T9N, R56E 999 ft from south line, 800 ft from east line Elevation: 4,742 ft Completed: Mar. 20, 1986 Status: P & A Depth: 4,500 ft Tops: **Ouaternary** valley fill Surface Tertiary volc. 2,310 ft Tertiary tuff of Pritchards Station 2,518 ft Tertiary volc. 3.460 ft Tertiary Stone Cabin Fm. 3,553 ft Paleozoic 3.868 ft Logs: 70-4.500 ft Lithologic 520-4,484 ft DM 520-4.484 ft Directional 520-4,481 ft BHCS 520-4,487 ft GR 520-4,487 ft CN/FDC 520-4,474 ft DLL/ML Samples: 70-4,500 ft Cuttings Remarks: Oil and gas shows below 3,900 ft.

MARATHON OIL CO.

Shoreline No. 1

API no.: 27-023-05376 Permit no.: 463 Location: SW 1/4 SW 1/4 sec. 5, T8N, R56E 430 ft from south line, 430 ft from west line Elevation: 4,730 ft Completed: Jan. 14, 1986 Status: P & A Depth: 2,846 ft (from KB) Tops: Quaternary valley fill Surface Tertiary volc. 950 ft Mississippian Chainman Sh. 2.050 ft Mississippian Joana Ls. 2,794 ft Logs: 515-2,470 ft DLL/ML 515-2,470 ft GR 45-2,470 ft CN/FDC 5-2,040 ft TS 515-2,450 ft Cyberlook 515-2,092 ft DM 515-2,472 ft BHCS Samples: 60-2,846 ft Cuttings

MARATHON OIL CO.

Silver Spring No. 1 API no.: 27-023-05384 Permit no.: 476 Location: NE¹/₄NW¹/₄ sec. 13, T10N, R57E 607 ft from north line,1,825 ft from west line Elevation: 5,012 ft Completed: June 15, 1986 Status: P & A Depth: 5,929 ft Tops: Surface 4,243 ft 4,702 ft 5,701 ft Logs: TS Spectralog BHCS DLL/ML/GR DM CN/FDL/GR Samples:

Cuttings

Quaternary valley fill Eocene Sheep Pass Fm. Mississippian Chainman Sh. Devonian carbonate rocks

1,160–5,853 ft 4,200–5,864 ft 1,170–5,851 ft 1,1160–5,853 ft 1,170–5,851 ft 1,160–5,864

80-5,910 ft

MARATHON OIL CO.

Soda Springs Unit No. 1 API no.: 27-023-05324 Permit no.: 366 Location: center, SW¹/₄SE¹/₄ sec. 15, T8N, R57E 665 ft from south line, 1,984 ft from east line Elevation: 4,736 ft Completed: Sept. 20, 1984 Status: P & A Depth: 8,092 ft Tops: 6,646 ft Eocene Sheep Pass Fm. 7.350 ft Paleozoic Cambrian Prospect Mountain Qtz. 7,700 ft Logs: 937-8,070 ft S 937-8,065 ft DLL 937-8,080 ft DM/FIL 3.000-8.077 ft FDC/CNL 6,300-7,900 ft **GR/CBL** Static TS 7,000-7,900 ft 3,000-8,047 ft GR Samples: 100-8,090 ft Cuttings Remarks: Permitted by Northwest Exploration Co., taken over by Husky Oil Co., and completed by Marathon Oil Co. Oil and gas shows in DST at 7,699-7,796 ft. During

Co. Oil and gas shows in DST at 7,699-7,796 ft. During testing 10-12 bbl of oil was produced. The gassy oil recovered had a 45° API gravity, a low pour point, and low (0.03%) sulfur content (Poole and Claypool, 1984, p. 198; Hotline Energy Reports, May 19, 1984).

MERIDIAN OIL, INC.

Spencer Federal No. 32-29 API no.: 27-023-05367 Permit no.: 446 Location: SW 4NE 4 sec. 29, T9N, R57E 1,650 ft from north line, 1,925 ft from east line Elevation: 4,757 ft Completed: Dec. 6, 1985 Status: P & A Depth: 14,505 ft Logs: 4,000-12,476 ft Lithologic 9,000-14,518 ft CNL/FDC 0-12,282 ft TS 7,500-12,400 ft DM 9.000-12.482 ft CNL/FDC 8,300-12,282 ft GR 1,604-14,510 ft LSS 10,500-12,475 ft Cyberlook

12,473-14,506 ft 1,604-13,934 ft

Samples:

Cuttings 4,000–14,505 ft

Remarks: Formerly Milestone Petroleum, Inc. Oil show in Mississippian Chainman Sh. at 11,822-11,830 ft (Hotline Energy Reports, May 26, 1986). Eighty-six bbl of test oil was sold before the well was plugged and abandoned.

NORTHWEST EXPLORATION CO.

Bacon Flat Federal No. 2

API no.: 27-023-05310 Permit no.: 326 Location: center, NW1/4NW1/4 sec. 20, T7N, R57E 700 ft from north line, 1,320 ft from west line Elevation: 4,707 ft Completed: Sept. 12, 1981 Status: Water-disposal well Depth: 6,905 ft Tops: Surface valley fill Logs: DIL 631-6.820 ft BHCS/GR 631-6.833 ft GR/N 4,936-6,833 ft Cal 640-6,820 ft Samples:

Cuttings 70-6,890 ft Remarks: Water-disposal well for Bacon Flat No. 1.

NORTHWEST EXPLORATION CO.

Bacon Flat No. 1 API no.: 27-023-05305 Permit no.: 316 Location: center, SW¹/4 sec. 17, T7N, R57E 1,320 ft from south line, 1,320 ft from west line Elevation: 4,726 ft Completed: July 14, 1981 Status: Producer Field: Bacon Flat Depth: 5,450 ft Tops: Surface **Ouaternary** valley fill 5.315 ft Devonian Guilmette Ls. Logs: Lithologic 515-5,441 ft 519-5,451 ft DI BHCS 519-5,433 ft CNL/FDC 3,404-5,439 ft DM 612-5,450 ft 3.414-5.419 ft Diplog CBL 3,350-5,394 ft Samples: 520-5,450 ft Cuttings

Remarks: Name changed from Railroad Valley No. 8. Oil zone at 5,316-5,353 ft. Currently operated by Apache Corp., formerly by Harper Oil Co. Core, crude oil, and water analyses are available at NBMG. DST at 5,315-5,346 is an oil zone.

NORTHWEST EXPLORATION CO.

Bacon Flat No. 5

API no.: 27-023-05309 Permit no.: 325 Location: center, NW¹/4SE¹/4 sec. 17, T7N, R57E 1,980 ft from south line, 1,980 ft from east line Elevation: 4,726 ft Completed: Aug. 26, 1981

Status: P & A Depth: 7,300 ft Tops: Surface **Ouaternary** valley fill 5.030 ft Tertiary volc. 5.516 ft Pennsylvanian Ely Ls. 5.799 ft Mississippian Chainman Sh. 6,435 ft Mississippian Joana Ls. 7.300 ft Devonian Simonson Dol. Logs: DIL 616-7,300 ft **CNL/Density** 3,900-7,300 ft BHCS/GR 616-7,302 ft 3,900-5,950 ft Acoustic fracture DM 3,890-7,300 ft Samples: Cuttings 620-7,300 ft Remarks: DST at 6,228-6,350 ft had an oil show. Other oil shows reported. NORTHWEST EXPLORATION CO. **Blue Eagle No. 1**

API no.: 27-023-05221 Permit no.: 183 Location: S1/2SE1/4NW1/4 sec. 13, T9N, R57E 2,440 ft from north line, 1,980 ft from west line Elevation: 4,820 ft Completed: Dec. 24, 1976 Status: P & A Depth: 9,040 ft Tops: Surface Ouaternary valley fill Logs: DIL 891-9,008 ft BHCS 891-9,010 ft CNL/FDC 891-9,012 ft Samples: Cuttings 890-9,040 ft Remarks: Water analysis available on DST at NBMG. A DST at 8,507-8,565 ft had a gas show.

NORTHWEST EXPLORATION CO.

Currant No. 1 API no.: 27-023-05265 Permit no.: 241 Location: SW1/4SE1/4SW1/4 sec. 26, T10N, R57E 658 ft from south line, 1,983 ft from west line Elevation: 4,892 ft Completed: Oct. 21, 1978 Status: P & A Depth: 7,800 ft Tops: Surface Quaternary valley fill 3,665 ft Tertiary volc. 6,660 ft Eocene Sheep Pass Fm. Logs: Lithologic 60-7,800 ft FIL 2,200-7,790 ft 427-7,789 ft DIL GR 6,800-7,118 ft 429-7,791 ft BHCS CNL/FDC 428-7,793 ft Samples: Cuttings 430-7,800 ft

Remarks: Producing at 7,038-7,080 ft (Sheep Pass Fm.). Crude oil, water analysis, organic-maturation analysis and palynology report available at NBMG. DST at 7,000-7,069 ft had an oil and gas show. The initial production was 4

BOPD (API gravity = 12.9° , pour point = 80° F). A total of 635 bbl was produced in 1979. The well was shut in until 1983 when 11 bbl was produced. The well never produced again and was P & A in 1986.

NORTHWEST EXPLORATION CO.

Grant Canyon No. 1

API no.: 27-023-05318 Permit no.: 353 Location: center, E¹/₂SW¹/₄NW¹/₄ sec. 21, T7N, R57E 1,980 ft from north line, 560 ft from west line Elevation: 4,735 ft Completed: Sept. 11, 1983 Status: Producer Field: Grant Canyon Depth: 4,487 ft Tops: Surface **Ouaternary** valley fill 4,342 ft Devonian Guilmette Ls. Logs: Lithologic 0-4.486 ft BHCS/GR 456-4,471 ft CNL/FDC 4,200-4,480 ft FIL 4,100-4,476 ft DI 456-4,480 ft Samples: Cuttings 0-4.486 ft Core 4.471-4.485 ft

Remarks: Discovery well of the Grant Canyon Field. Producing at 4,374-4,426 ft. Producing formation is Devonian Guilmette. Currently operated by Apache Corp., formerly by Harper Oil Co. Core analysis is available at NBMG. DST at 4,441-4,340 ft had an oil show. This well initially flowed 1,816 BOPD.

NORTHWEST EXPLORATION CO.

Little Meadows No. 1 API no.: 27-023-05263 Permit no.: 239 Location: center, NE¹/₄NE¹/₄ sec. 32, T6N, R56E 657 ft from north line, 660 ft from west line Elevation: 4,745 ft Completed: July 16, 1978 Status: P & A Depth: 5,291 ft Tops: Surface Quaternary valley fill 2,768 ft Tertiary volc. 5,020 ft Paleozoic Logs: Lithologic 443-5.291 ft 434-5,286 ft DIL BHCS/GR 435-5,281 ft CNL/FDC 435-5,290 ft Samples: Cuttings 70-5,270 ft 5,270-5,291 ft Core Remarks: Water analysis available on DST's at NBMG. DST

at 2,589–2,775 ft had a slight oil show.

NORTHWEST EXPLORATION CO.

Railroad Valley No. 1

API no.: 27-023-05290 Permit no.: 291 Location: SW '4SW '4 sec. 20, T10N, R57E 660 ft from south line, 660 ft from west line

Elevation: 4.847 ft Completed: Dec. 21, 1980 Status: P & A Depth: 3,643 ft Tops: Surface Quaternary valley fill 2,580 ft Tertiary volc. Logs: Lithologic 300-3.514 ft DIL 300-3,526 ft CNL 300-3,526 ft Samples: Cuttings 300-3,643 ft Remarks: Dead oil shows reported in valley fill at 600-690 ft and 870-1.470 ft. NORTHWEST EXPLORATION CO. **Railroad Valley No. 2** API no.: 27-023-05298 Permit no.: 306 Location: center, SW 1/4 sec. 36, T10N, R57E 1,320 ft from south line, 1,320 ft from west line Elevation: 4,921 ft Completed: May 9, 1981 Status: P & A Depth: 5,150 ft Tops: Surface Quaternary valley fill Tertiary weathered volcanic 3,970 ft flows and ash 4,650 ft Tertiary Garrett Ranch Volc. Logs: Lithologic 390-5.150 ft DIL 382-5,145 ft BHCS 382-5,145 ft FDC/CNL/GR 382-5,145 ft Samples: Cuttings 390-5.150 ft Remarks: Oil show at 4,200-4,210 ft. NORTHWEST EXPLORATION CO. **Railroad Valley No. 3** API no.: 27-023-05297 Permit no.: 305 Location: center, NW¹/4 sec. 31, T9N, R56E 1,320 ft from north line, 1,320 ft from west line Elevation: 4,868 ft Completed: May 23, 1981 Status: P & A Depth: 1,500 ft Tops: Surface Quaternary valley fill 630 ft Tertiary volc. Logs: Lithologic 129-1,505 ft N/GR/FDC 130-1,502 ft S 124-1,496 ft DIL 124-1,502 ft Samples: Cuttings 130-1,530 ft NORTHWEST EXPLORATION CO. **Railroad Valley No. 4** API no.: 27-023-05296 Permit no.: 304 Location: SW¹/4 sec. 4, T8N, R56E 1,320 ft from south line, 1,320 ft from west line

Elevation: 4,735 ft

Completed: June 2, 1981 Status: P & A Depth: 2.100 ft Tops: Surface Quaternary valley fill 1,467 ft Tertiary volc. Logs: Lithologic 225-2,100 ft DIL/GR 218-2.078 ft 1,551-2,068 ft Samples: Cuttings 225-2,100 ft

NORTHWEST EXPLORATION CO.

Railroad Valley No. 6

API no.: 27-023-05292 Permit no.: 294 Location: center, NE¹/₄NW¹/₄ sec. 20, T8N, R56E 660 ft from north line, 1,980 ft from west line Elevation: 4,707 ft Completed: Dec. 7, 1980 Status: P & A Depth: 1,429 ft Tops: Surface Quaternary valley fill 1,434 ft Tertiary volc. Logs: Lithologic 415-1.930 ft DIL/GR 415-1,927 ft CN 380-1,927 ft FDC 380-1,927 ft Samples: Cuttings 420-1,930 ft

NORTHWEST EXPLORATION CO.

Railroad Valley No. 7 API no.: 27-023-05293 Permit no.: 295 Location: center, SE¼SW¼ sec. 15, T8N, R56E 660 ft from south line, 1,980 ft from west line Elevation: 4,713 ft Completed: Nov. 26, 1980 Status: P & A Depth: 6,454 ft Tops: valley fill Surface 5,850 ft Tertiary volc. 6.222 ft Paleozoic Logs: Lithologic 412-6,454 ft DIL 412-6.367 ft FDC 412-6.367 ft CN 412-6,361 ft Samples: Cuttings 412-6,450 ft Remarks: Minor oil show at 5,060-5,100 ft.

NORTHWEST EXPLORATION CO.

Railroad Valley No. 9

API no.: 27-023-05306 Permit no.: 317 Location: center, SW¹/4 sec. 36, T7N, R56E 1,320 ft from south line, 1,320 ft from west line Elevation: 4,707 ft Completed: July 27, 1981 Status: P & A Depth: 5,351 ft

Tops:	
Surface	valley fill
3,578 ft	Paleozoic
Logs:	
Lithologic	633–5,351 ft
CNL/GR	631-5,346 ft
DIL	630-5,347 ft
BHCS	630-5,340 ft
Samples:	·
Cuttings	630–5,351 ft

NORTHWEST EXPLORATION CO.

Railroad Valley No. 10 API no .: 27-023-05307 Permit no.: 318 Location: center, SW1/4 sec. 21, T6N, R56E 1,320 ft from south line, 1,320 ft from west line Elevation: 4,737 ft Completed: Aug. 13, 1981 Status: P & A Depth: 5,753 ft Tops: Surface Ouaternary valley fill 4,964 ft Tertiary volc. Logs: Lithologic 627-5,753 ft CNL/FDC 626-5,750 ft BHCS 626-5,718 ft DIL 630-5,753 ft Samples: Cuttings 630-5,753 ft

NORTHWEST EXPLORATION CO.

Trap Spring No. 1 API no .: 27-023-05220 Permit no.: 180 Location: NE¹/₄SE¹/₄SE¹/₄ sec. 27, T9N, R56E 800 ft from south line, 400 ft from east line Elevation: 4.738 ft Completed: Nov. 27, 1976 Status: Producer Field: Trap Spring Depth: 6,137 ft Tops: Surface Quaternary valley fill (Horse Camp Fm.) 4,178 ft Tertiary Garrett Ranch Volc. Logs: Lithologic 1,000-6,137 ft DIL 1,008-5,982 ft CNL/FDC 1,008-5,990 ft BHCS 1,008-5,970 ft FIL 4,000-5,600 ft Samples: 1,800-6,100 ft Cuttings 4,375-4,444 ft Core Remarks: Discovery well for the Trap Spring field. Currently

operated by Apache Corp., formerly by Harper Oil Co. Producing at 4,249–4,337 ft. DST's at 4,220–4,374 ft, 4,374–4,444 ft, and 4,630–4,827 ft had oil shows. This well initially produced 410 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 1-R *API no.:* 27-023-05295 *Permit no.:* 303 *Location:* S¹/₂NW¹/₄SE¹/₄ sec. 27, T9N, R56E 1,940 ft from south line, 1,980 ft from east line

Elevation: 4,744 ft Completed: Feb. 10, 1981 Status: Producer Field: Trap Spring Depth: 4,200 ft Tops: **Ouaternary** valley fill Surface Tertiary volc.-welded tuff 3,753 ft Logs: 513-4,200 ft Lithologic 514-4,196 ft DIL 514-4,167 ft BHCS Samples: 500-4,200 ft Cuttings Remarks: Oil zones at 3,760-3,880 ft and 3,990-4,090 ft. Pro-

ducing formation is Garrett Ranch Volc.(?). Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 3,774-3,865 ft and 3,864-3,915 ft had oil shows. This well initially produced 126 BOPD(?).

NORTHWEST EXPLORATION CO.

Trap Spring No. 2 API no.: 27-023-05223 Permit no.: 185 Location: center, SE¹/₄SW¹/₄ sec. 27, T9N, R56E 660 ft from south line, 1,980 ft from west line Elevation: 4,745 ft Completed: Feb. 9, 1977 Status: Producer Field: Trap Spring Depth: 3,993 ft Tops: Ouaternary valley fill Surface Tertiary Garrett Ranch Volc. 3,160 ft Logs: 406-3,996 ft **CNL/FDC** 406-3.993 ft DIL 406-3,995 ft BHCS 412-3,997 ft DM 2,900-3,997 ft FIL Samples: 190-3.997 ft Cuttings 3,312-3,331 ft Core

Remarks: Producing at 3,330-3,350 ft. Producing formation is volcanics (Garrett Ranch). Currently operated by Apache Corp., formerly by Harper Oil Co. This well initially produced 109 BOPD. Devonian Guilmette Ls. identified in bottom of well (Duey, 1979, p. 471).

NORTHWEST EXPLORATION CO.

Trap Spring No. 3

API no.: 27-023-05225 Permit no.: 188 Location: center, NW14NE14 sec. 34, T9N, R56E 660 ft from north line, 1,980 ft from east line Elevation: 4,740 ft Completed: Apr. 30, 1977 Status: Producer Field: Trap Spring Depth: 6,368 ft Tops: Ouaternary valley fill Surface Tertiary volc. (from PI) 3,135 ft Paleozoic (from PI) 5,400 ft Logs: 100-6,368 ft Lithologic

DIL	1,000-6,329 ft
CNL/FDC	1,000-6,330 ft
DM	1,006–6,332 ft
BHCS	1,000-6,326 ft
FIL	1,006-6,332 ft
Samples:	
Core	3,726–3,743 ft
Core	4,081–4,111 ft
Core	6,344–6,368 ft
Remarks: Producin	ng at 3,269–4,083 ft. Producing formation

Remarks: Producing at 3,269-4,083 ft. Producing formation is volcanics (Garrett Ranch). Currently operated by Apache Corp., formerly Harper Oil Co. DST at 3,659-3,744 ft, and 4,027-4,112 ft had oil shows. This well initially produced 2,488 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 4

API no.: 27-023-05226 Permit no.: 189 Location: center, SE¹/₄NE¹/₄ sec. 27, T9N, R56E 1,980 ft from north line, 660 ft from east line Elevation: 4,750 ft Completed: Mar. 23, 1977 Status: Producer Field: Trap Spring Depth: 4,865 ft Tops: Quaternary valley fill Surface Tertiary Garrett Ranch Volc. 3.862 ft Paleozoic (from PI) 4,786 ft Logs: DIL 408-4.838 ft 408-4,842 ft CNL/FDC 408-4,834 ft BHCS 2,900-4,834 ft Amplitude 408-4,842 ft DM 3,600-4,842 ft FIL Samples: 130-4,860 ft Cuttings Remarks: Producing at 4,013-4,526 ft. Producing formation is volcanics (Garrett Ranch ?). Currently operated by Apache Corp., formerly by Harper Oil Co. DST at 4,244-

4,330 ft had an oil show. This well initially produced

NORTHWEST EXPLORATION CO.

96 BOPD.

Trap Spring No. 7 API no.: 27-023-05231 Permit no.: 194 Location: center, SE¹/₄NE¹/₄ sec. 8, T8N, R56E 1,980 ft from north line, 660 ft from east line Elevation: 4,720 ft Completed: May 31, 1977 Status: P & A Depth: 3,418 ft Tops (from PI): Quaternary valley fill Surface Tertiary Garrett Ranch Volc. 1.280 ft Paleozoic 2,430 ft Logs: 400-3,418 ft Lithologic 414-3,202 ft CNL/FDC 1.600-3.202 ft FDC 414-3,202 ft BHCS 413-3,198 ft DIL Samples: 430-3,410 ft Cuttings

NORTHWEST EXPLORATION CO.

Trap Spring No. 8 API no.: 27-023-05233 Permit no.: 196 Location: center, SE¹/₄SW¹/₄ sec. 23, T9N, R56E 660 ft from south line, 1,980 ft from west line Elevation: 4,758 ft Completed: Sept. 14, 1977 Status: Producer Field: Trap Spring Depth: 5,000 ft Tops: Surface Quaternary valley fill 4.010 ft Tertiary volc. Logs: GR 4.000-4.950 ft DIL 414-500 ft BHCS 415-5,006 ft Samples: Cuttings 420-5,000 ft

Remarks: Producing at 4,408-4,575 ft. Producing formation is volcanics. Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 4,365-4,460 ft, 4,466-4,610 ft, 4,510-4,554 ft, and 4,834-5,000 ft had oil shows. This well initially produced 214 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 9 API no.: 27-023-05234 Permit no.: 197 Location: NW1/4 NW1/4 sec. 26, T9N, R56E 990 ft from north line, 990 ft from west line Elevation: 4,752 ft Completed: Sept. 5, 1978 Status: Producer Field: Trap Spring Depth: 6,335 ft Tops: Surface Quaternary valley fill 4.120 ft Tertiary volc. 5,310 ft Oligocene Stone Cabin Fm. 6,098 ft Paleozoic ls. Logs: Lithologic 427-6,335 ft DIL 422-6,326 ft FDC/GR 422-6,330 ft BHCS 422-6,321 ft FIL 3,500-6,328 ft Samples: Cuttings 430-6,335 ft

Remarks: Producing at 4,120-4,757 ft. Producing formation is volcanics. Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 4,195-4,341 ft, 4,341-4,441 ft, 4,440-4,591 ft, 4,591-,750 ft had oil shows. This well initially produced 1,234 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 10API no.: 27-023-05242Permit no.: 205Location: center, SE¼NW¼ sec. 34, T9N, R56E1,980 ft from north line, 1,980 ft from west lineElevation: 4,740 ftCompleted: June 19, 1977Status: P & ADepth: 5,781 ftTops (from PI):SurfaceQuaternary valley fill5,318 ftPaleozoic

Logs:	
DIL	416-5,738 ft
CNL/FDC	416-5,732 ft
FIL	2,600-5,725 ft
BHCS	416-5,730 ft
DL	416-5,774 ft
Samples:	
Cuttings	345-406 ft
Cuttings	2,900-5,300 ft

NORTHWEST EXPLORATION CO.

Trap Spring No. 13 API no.: 27-023-05240 Permit no.: 203 Location: center, SE¹/₄SW¹/₄ sec. 26, T9N, R56E 660 ft from south line, 1,980 ft from west line Elevation: 4,742 ft Completed: Aug. 25, 1978 Status: Water-disposal well Depth: 7,956 ft Tops: Surface Ouaternary valley fill 4.960 ft Tertiary volc. Logs: CNL/FDC 398-7.955 ft DIL 398-7.952 ft FIL. 4,500-7,928 ft 4,200-7,552 ft CBL BHCS 398-7,922 ft Samples: Cuttings 4,600-7,956 ft (incomplete) Remarks: Water disposal into the Tertiary Garrett Ranch Volc. at 5,815-5,836 ft. Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 4,950-5,062

NORTHWEST EXPLORATION CO.

ft and 5,062-5,163 ft had oil shows.

Trap Spring No. 15 API no.: 27-023-05250 Permit no.: 214 Location: SE14SW14NW14 sec. 3, T8N, R56E 2,400 ft from north line, 1,000 ft from west line Elevation: 4,735 ft Completed: Nov. 3, 1977 Status: P & A Depth: 6,142 ft Tops: 3,400 ft volc. Logs: DIL 416-6,138 ft BHCS 416-6,131 ft FIL 3,900-6,141 ft Samples: Cuttings 420-6,142 ft

NORTHWEST EXPLORATION CO.

Trap Spring No. 16API no.: 27-023-05261Permit no.: 232Location: SE¼NW¼SE¼ sec. 23, T9N, R56E1,870 ft from south line, 1,500 ft from east lineElevation: 4,759 ftCompleted: Sept. 29, 1978Status: ProducerField: Trap SpringDepth: 5,509 ftTops:Surfacevalley fill4,324 fttuff of Pritchards Station

Logs:	
Lithologic	419–5,509 ft
DIL	422-5,502 ft
FDC/GR	428-5,507 ft
BHCS	427-5,506 ft
FIL	4,100-5,507 ft
Samples:	

Cuttings Remarks: Producing at 4,324-4,925 ft. Producing formation is volcanics. Crude oil and water analyses are available at NBMG. Currently operated by Apache Corp., formerly by Harper Oil Co. DST's at 4,473-4,672 ft, 4,672-4,747 ft, 4,747-4,900 ft, and 4,900-5,000 ft had oil shows. This well initially produced 847 BOPD.

430-5,509 ft

NORTHWEST EXPLORATION CO.

Trap Spring No. 17

API no.: 27-023-05246 Permit no.: 210 Location: center, SE¹/₄NE¹/₄ sec. 23, T9N, R56E 1.980 ft from north line, 660 ft from east line Elevation: 4,766 ft Completed: Sept. 17, 1977 Status: Producer Field: Trap Spring Depth: 5,000 ft Tops: Quaternary valley fill Surface Tertiary volc. (measured from KB) 3,775 ft Tertiary Stone Cabin Fm. 4,790 ft Logs: 4.253-5.000 ft Lithologic 420-4,218 ft DIL 2,200-4,227 ft FIL 420-4,216 ft BHCS Samples: 430-5,000 ft Cuttings

Remarks: Producing at 3,930-4,240 ft. Producing formation is volcanics. Current operator is Apache Corp., formerly by Harper Oil Co. DST at 3,915-4,240 ft had an oil show. This well initially produced 282 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 19

API no.: 27-023-05255 Permit no.: 219 Location: center, SE¼NW¼ sec. 23, T9N, R56E 1,980 ft from north line, 1,980 ft from west line Elevation: 4,764 ft Completed: Dec. 2, 1977 Status: Producer Field: Trap Spring Depth: 4,580 ft Tops: Tertiary volc. 2,890 ft Logs: 422-4,573 ft DIL 423-4.566 ft BHCS 2,195-4,578 ft FIL Samples: 60-4,580 ft Cuttings

Remarks: Producing at 3,374-4,100 ft. Producing formation is volcanics. Current operator is Apache Corp., formerly by Harper Oil Co. DST's at 3,375-3,520 ft, 3,530-3,670 ft, 3,680-3,820 ft, 3,825-4,020 ft, 3,940-4,220 ft, and 4,250-4,450 ft had oil shows. This well initially produced 135 BOPD.

NORTHWEST EXPLORATION CO.

Trap Spring No. 20-X API no.: 27-023-05262 Permit no.: 233 Location: S1/2SE1/4SE1/4 sec. 22, T9N, R56E 610 ft from south line, 660 ft from east line Elevation: 4,763 ft Completed: Feb. 11, 1981 Status: Water-disposal well Depth: 5,650 ft Tops: Ouaternary valley fill Surface Tertiary tuff of 3,905 ft **Pritchards Station** Tertiary Stone Cabin Fm. 4,440 ft Paleozoic ls. 4,705 ft Logs: 433-5,533 ft DIL 4,941-5,536 ft CNL/FDC 4,775-5,640 ft CBL 419-5,650 ft Lithologic 422-4,216 ft BHCS Samples: 400-5,640 ft Cuttings Remarks: Disposal at 5,140-5,160 ft. Oil shows at 3,930-4,010

ft and 5,450-5,570 ft. This well was a redrill of Trap Spring No. 20 which was located 50 ft to the north. Currently operated by Apache Corp., formerly by Harper Oil Co. Original oil production at 3,932-3,987 ft. Original producing formation was volcanics. Initial oil production was 10 BOPD. DST at 3,977-4,117 ft had an oil show.

NORTHWEST EXPLORATION CO.

Trap Spring No. 21 API no.: 27-023-05264 Permit no.: 240 Location: center, SE¹/₄NW¹/₄ sec. 27, T9N, R56E 1,980 ft from north line, 1,980 ft from west line Elevation: 4,753 ft Completed: Nov. 7, 1978 Status: P & A Depth: 3,734 ft Tops: Quaternary valley fill Surface Tertiary tuff of 3,010 ft **Pritchards Station** Paleozoic 3,380 ft Logs: 415-3,734 ft Lithologic 413-3,728 ft DIL 414-3,733 ft BHC Samples: 430-3.730 ft Cuttings Remarks: Water analysis from DST's is available at NBMG.

NORTHWEST EXPLORATION CO.

Warm Springs No. 1 API no.: 27-023-05260 Permit no.: 231 Location: center, SE¹/₄SE¹/₄ sec. 32, T8N, R56E 660 ft from south line, 660 ft from east line Elevation: 4,708 ft Completed: June 25, 1978 Status: P & A Depth: 4,528 ft

Tops: Surface Quaternary valley fill 2.930 ft fault or slide block 3,030 ft Devonian(?) Logs: Lithologic 427-4,528 ft 427-4,527 ft DIL BHCS 427-4,524 ft CNL/FDC 427-4,534 ft Samples: Cuttings 60-4,530 ft Remarks: Bottom-hole temperature 161-166°F.

NORTHWEST EXPLORATION CO.

White River Valley No. 1 API no .: 27-023-05219 Permit no.: 179 Location: SW1/4NE1/4SW1/4 sec. 2, T7N, R61E 1,400 ft from south line, 1,450 ft from west line Elevation: 5,225 ft Completed: Sept. 10, 1976 Status: P & A Depth: 10,473 ft Tops: Surface Quaternary Horse Camp Fm. (valley fill) 2,910 ft Oligocene Garrett Ranch Volc. Eocene Sheep Pass Fm. 5,260 ft 5.402 ft Pennsylvanian Ely Ls. 7.900 ft Mississippian Chainman Sh. 9,660 ft Mississippian Joana Ls. Logs: DIL 858-10,456 ft 871-10,435 ft DM CNL/FDC 858-8.974 ft BHCS 858-10.442 ft 860-9,187 ft Velocity Samples: 860-10,473 ft Cuttings

Remarks: Numerous oil and gas shows in Sheep Pass, Ely, Chainman, and Joana. Source-rock analysis of Chainman Sh. is available at NBMG. Oil and gas show in DST at 8,472-8,550 ft.

NORTHWEST EXPLORATION CO.

White River Valley No. 3 API no.: 27-023-05289 Permit no.: 290 Location: center, SW1/4 SW1/4 sec. 15, T10N, R61E 660 ft from south line, 660 ft from west line Elevation: 5,367 ft Completed: Jan. 11, 1981 Status: P & A Depth: 5,975 ft Tops: valley fill Surface 1,450 ft Tertiary volc. 2,940 ft Permian ls. Logs: 425-5,974 ft Lithologic CN/FDC 422-5,974 ft DI 422-5,974 ft Samples: Cuttings 425-5,974 ft Remarks: Dead oil identified at several intervals especially in

valley fill. Hole temperature was 110°F at 5,661 ft.

NORTHWEST EXPLORATION CO.

White River Valley No. 4 API no .: 27-023-05308

Permit no.: 321 Location: SE¹/₄NE¹/₄NW¹/₄ sec. 21, T9N, R61E 700 ft from north line, 2,000 ft from west line Elevation: 5,315 ft Completed: July 28, 1981 Status: P & A Depth: 2.325 ft Logs: DI 372-2.326 ft BHCS 372-2,317 ft N/GR/FDC 372-2,323 ft Samples: Cuttings

380-2.325 ft Remarks: Organic-maturation and palynology report for 1,450-1,480 ft (Mississippian) available at NBMG.

NORTHWEST EXPLORATION CO.

White River Valley No. 5 API no.: 27-023-05299 Permit no.: 307 Location: center, NW1/4 sec. 2, T8N, R61E 1,320 ft from north line, 1,320 ft from west line Elevation: 5,286 ft Completed: Aug. 14, 1981 Status: P & A Depth: 4,294 ft Logs: DIL 428-4,294 ft BHCS 428-4,266 ft CN/FDL 620-4.297 ft Cyberlook 428-4,297 ft Samples: Cuttings

425-4,290 ft

NORTHWEST EXPLORATION CO.

White River Valley No. 6 API no.: 27-023-05300 Permit no.: 308 Location: center, NW1/4 sec. 10, T7N, R61E 1,320 ft from north line, 1,320 ft from west line Elevation: 5,236 ft Completed: Sept. 29, 1981 Status: P & A Depth: 6,300 ft Tops: 3,394 ft Eocene Sheep Pass Fm. 4,210 ft Pennsylvanian Ely Ls. 5,920 ft Mississippian Chainman Sh. Logs: DIL 413-6,301 ft S/GR 413-6.304 ft N/GR/FDC 3,300-6,300 ft Samples: 407-6,300 ft Cuttings Remarks: Oil recovered from DST at 2,190-2,225 ft from a Tertiary tuff conglomerate (Poole and Claypool, 1984, table 15).

NORTHWEST EXPLORATION CO.

White River Valley No. 7 API no.: 27-023-05291 Permit no.: 293 Location: SW1/4SE1/4 sec. 34, T7N, R61E 660 ft from south line, 2,147 ft from east line Elevation: 5,222 ft Completed: Jan. 17, 1981 Status: P & A Depth: 5,000 ft

Tops:	
Surface	Quaternary valley fill
2,455 ft	Tertiary volc.
Logs:	
Lithologic	400–5,000 ft
DIL	432–4,274 ft
Samples:	
Cuttings	400-5,000 ft

OVERLAND PETROLEUM CO., INC.

Munson Ranch Federal No. 31-1 API no.: 27-023-05237 Permit no.: 200 Location: NW 1/4 SE 1/4 sec. 31, T10N, R57E 1,983 ft from south line, 1,979 ft from east line Elevation: 4,814 ft Completed: Apr. 8, 1977 Status: P & A Depth: 3,800 ft Tops: Surface Quaternary valley fill 2,850 ft Tertiary volcanic tuff Logs: 510-3,800 ft Lithologic 460-3,800 ft IES Remarks: Oil shows at several intervals below 2,800 ft.

PAN AMERICAN PETROLEUM CORP.

U.S.A. McDonald No. 1 API no.: 27-023-05212 Permit no.: 127 Location: center, SE¼SE¼ sec. 2, T11N, R57E 660 ft from south line, 660 ft from east line Elevation: 5,748 ft Completed: Oct. 21, 1968 Status: P & A Depth: 2,943 ft Logs: IES 709-2,943 ft 709-2.943 ft BHCS 700-2,000 ft DM

PAN AMERICAN PETROLEUM CORP.

U.S.A. Pan American No. 1 API no.: 27-023-05204 Permit no.: 115 Location: NW 1/4 NW 1/4 NW 1/4 sec. 36, T3N, R54E 163 ft from north line, 239 ft from west line Elevation: 6,414 ft Completed: Apr. 5, 1968 Status: P & A Depth: 8,355 ft Tops: Oligocene volcanic tuffs Surface Logs: 488-8,355 ft IES 488-8.346 ft BHCS/GR 490-8,349 ft DM

PENNINGTON OIL PRODUCERS

Pennington-Pan American No. 1

API no.: 27-023-05101 Permit no.: 101 Location: center, SE¼SE¼ sec. 4, T5N, R56E 660 ft from south line, 660 ft from east line Status: P & A Depth: 1.505 ft Remarks: Heavy flow of water at 1,295-1,505 ft. PENNINGTON, WM. N. AND WM. V. Pennington-Pan American Big Wash No. 1 API no.: 27-023-05214 Permit no.: 129 Location: E¹/₂SW¹/₄NW¹/₄ sec. 36, T10N, R57E 3,300 ft from south line, 990 ft from west line Elevation: 4,925 ft Completed: Dec. 19, 1968 Status: P & A Depth: 8,413 ft Tops: 4,187 ft Tertiary volc. 7.120 ft Eocene Sheep Pass Fm. Logs: IES 452-8,412 ft BHCS/GR 452-8,411 ft Remarks: Penningtons designated Pan American as operator of Big Wash No. 1. Oil show in DST at 4,100-4,250 ft. PHILLIPS PETROLEUM CO. **Dobbin Creek Federal A No. 1-6** API no.: 27-023-05355 Permit no.: 411 Location: SW1/4 NE1/4 sec. 6, T13N, R48E 2,210 ft from north line, 1,975 ft from east line Elevation: 7,021 ft Completed: Mar. 26, 1985 Status: P & A Depth: 4,679 ft Tops: Quaternary valley fill Surface Miocene volc. 1,010 ft 1,900 ft Oligocene volc. Paleozoic 3,198 ft Ordovician Eureka Qtz. 4,554 ft Logs: 200-4,679 ft Lithologic 2,288-4,666 ft CN/FDC DI 100-2.296 ft 2,288-4,654 ft DLL 100-4,660 ft BHCS 2,000-4,669 ft TS 2,288-4,634 ft GR Samples: Cuttings 200-4,679 ft PIERCE, R. C.

Halstead No. 1 API no.: 27-023-05060 Permit no.: NY1 Location: NW¼NW¼ sec. 27, T12N, R56E 1,100 ft from north line, 1,100 ft from west line Completed: 1954 Status: D & A Depth: 313 ft

PIONEER OIL & GAS

Elevation: 4,820 ft

Completed: Aug. 8, 1966

Crow's Nest No. 23-11 API no.: 27-023-05383 Permit no.: 473 Location: SE¼NW¼NW¼ sec. 23, T6N, R56E 990 ft from north line, 990 ft from west line

Elevation: 4,745 ft Completed: Apr. 17, 1986 Status: P & A Depth: 5,586 ft Tops: Surface Quaternary valley fill 3,420 ft Tertiary volc. 3,802 ft Eocene Sheep Pass Fm. Logs: Lithologic 442-5,540 ft CNL/FDC 3,987-5,572 ft BHCS 441-5,568 ft DM 441-5,566 ft DLL 441-5,560 ft Remarks: Oil show at 4,720-5,120 ft.

PIONEER OIL & GAS

Willow Springs No. 1-31-33 API no.: 27-023-05387 Permit no.: 481 Location: NE¼NW¼SE¼ sec. 31, T7N, R57E 2,335 ft from south line, 1,689 ft from east line Elevation: 4,708 ft Completed: Jan. 4, 1987 Status: P & A Depth: 6,071 ft Logs: Lithologic 401-6,071 ft DLL 4,233-6,054 ft DLL/GR 360-4,230 ft FDL/CN 4,233-6,065 ft DM 4.233-6.065 ft BHCS 400-6,063 ft Samples: Cuttings 401-6,071 ft Remarks: Well flowed water from the 150-170 ft interval. Oil show at 4,904-4,920 ft. Minor gas shows.

PYRAMID OIL CO.

U.S. Government No. NS 33-3 API no.: 27-023-05241 Permit no.: 204 Location: NW1/4 NW1/4 sec. 33, T9N, R56E 660 ft from north line, 665 ft from west line Elevation: 4,755 ft Completed: May 25, 1977 Status: P & A Depth: 4,225 ft Logs: Fracture finder 450-4,222 ft 454-4,221 ft IES 450-4,222 ft BHCS Samples: 450-4,220 ft Cuttings

SHELL OIL CO.

Coyote Unit No. 1 API no.: 27-023-05000 Permit no.: 22 Location: center, N¹/₂SW¹/₄ sec. 28, T7N, R55E Elevation: 4,613 ft Completed: Sept. 11, 1955 Status: P & A Depth: 1,711 ft Tops: Surface Quaternary valley fill Tertiary volcanic tuff 950 ft Paleozoic ls. and dol. 1,294 ft

Logs: 0-1,711 ft Lithologic IES 419-950 ft GR 220-1.670 ft Remarks: Artesian water flow estimated at 15 to 480 GPM from unknown intervals at 27-1,711 ft. Dead oil shows in shallow water well drilled nearby. SHELL OIL CO. Eagle Springs Unit No. 1-35 API no.: 27-023-05011 Permit no.: 4 Location: SE¹/₄NE¹/₄NW¹/₄ sec. 35, T9N, R57E 1,300 ft from north line, 2,900 ft from east line Elevation: 4,754 ft Completed: May 23, 1954 Status: Water-disposal well Field: Eagle Springs Depth: 10,358 ft Tops: Surface Quaternary valley fill 3,230 ft Quaternary freshwater ls. 3,480 ft Quaternary valley fill Oligocene (?) volc. (tuffs) 6,450 ft Eocene Sheep Pass Fm. 7,305 ft Paleozoic ls., ss., sh. 7,785 ft 10,330 ft quartz monzonite Logs: Lithologic 0-10,358 ft IES 1,018-10,358 ft GR/N 30-10,358 ft ML 1.500-10.354 ft DM 3,460-8,205 ft Section gauge 1,016-10,356 ft Samples: 140-10,345 ft Cuttings Core 4,710-9,960 ft (incomplete) Remarks: This was the first producing well in Nevada. Oil zone at 6,450-6,730 ft. Crude oil, water, and sourcerock analysis available at NBMG. DST's at 6,453-6,528 ft, 6,453-6,533 ft, 6,538-6,573 ft, and 6,638-6,724 ft had oil and gas shows. DST's at 6,583-6,638 ft, 6,728-6,813 ft, and 6,815-6,913 ft had only oil shows. Producer until 1970; converted to a water-disposal well in 1978. Oil shows in Paleozoic rocks also. SHELL OIL CO. Eagle Springs Unit No. 2 API no.: 27-023-05001 Permit no.: 10 Location: NW¹/4NE¹/4SE¹/4 sec. 2, T7N, R56E 2,000 ft from south line, 720 ft from east line Elevation: 4,709 ft Completed: Dec. 7, 1954

Status: P & A Depth: 10,183 ft

Tops: Surface 6,510 ft 10,155 ft Logs: Lithologic IES DM GR/N TS ML Samples: Cuttings

Quaternary valley fill Tertiary volc. Paleozoic

0-10.183 ft 997-10.181 ft 3,505-10,020 ft 20-10,183 ft 50-10,178 ft 6,000-10,178 ft

0-10,183 ft

Core Chips 5,415-10,183 ft *Remarks:* Source-rock analysis (Chainman) available at NBMG. Oil shows reported in volcanics below 7,100 ft and oil and gas shows in shale at 9,493-10,130 ft. Strong hydrocarbon odor noted in Paleozoic limestone.

SHELL OIL CO.

Eagle Springs Unit No. 3 API no.: 27-023-05007 Permit no.: 11 Location: center, NE¹/₄NE¹/₄ sec. 27, T8N, R57E 670 ft from north line, 671 ft from east line Elevation: 4,743 ft Completed: July 31, 1954 Status: P & A Depth: 6,038 ft Tops: Quaternary valley fill Surface 5,194 ft Devonian Simonson Dol. 5,820 ft Devonian Sevy Dol. 5.927 ft fault zone 5,933 ft Cambrian Logs: 0-6,038 ft Lithologic IES 752-6,035 ft ML 850-6,035 ft GR/N 0-6,035 ft DM 2,000-6,035 ft 800-6,000 ft Directional Samples: 20-6.040 ft Cuttings 5,414-5,427 ft Core 5,972-5,982 ft Core Remarks: Oil shows were reported in Simonson Dol. above

5,500 ft and gas shows at several intervals.

SHELL OIL CO.

Eagle Springs Unit No. 4 API no .: 27-023-05006 Permit no.: 25 Location: SE¹/₄SW¹/₄ sec. 22, T8N, R57E 660 ft from south line, 1,985 ft from west line Elevation: 4,729 ft Completed: Jan. 3, 1956 Status: P & A Depth: 7.885 ft Tops: valley fill Surface Mississippian Illipah Ss.-6,632 ft Chainman Sh. Devonian Simonson Dol. 7,294 ft 7,460 ft Devonian Sevy Dol. Logs: 0-7,885 ft Lithologic 765-7,885 ft DM IES 766-7,882 ft 2,250-7,882 ft ML 2,250-7,885 ft GR/N Samples: 6,571-7,182 ft (incomplete) Core chips Remarks: Minor gas shows were reported.

SHELL OIL CO.

Eagle Springs Unit No. 15-35 API no.: 27-023-05009 Permit no.: 21

Location: NW 1/4 NW 1/4 SW 1/4 sec. 35, T9N, R57E 2,100 ft from south line, 78 ft from west line Elevation: 4,744 ft Completed: July 2, 1955 Status: Shut in Field: Eagle Springs Depth: 8,050 ft Tops: Surface Quaternary valley fill 6,800(?) ft Paleozoic ls. (Pennsylvanian Ely Ls.?) 7,579(?) ft Mississippian Chainman Sh. Logs: Lithologic 0-8.050 ft IES 780-7,996 ft GR/N 6,000-8,000 ft DM 6,560-7,968 ft 6,700-7,573 ft Section gauge ML 5,450-7,996 ft Samples: Core 6,862-8,000 ft (incomplete) Remarks: Oil zone at 6,998-7,360 ft. Sample and core analysis available at NBMG. DST at 7,158-7,360 ft had an oil and gas show; also shows reported in Chainman Sh. SHELL OIL CO. Eagle Springs Unit No. 17-34 API no.: 27-023-05004 Permit no.: 27 Location: NW1/4SW1/4SW1/4 sec. 34, T9N, R57E 1,310 ft from south line, 300 ft from west line Elevation: 4,741 ft Completed: Feb. 29, 1956 Status: Water well Depth: 9,518 ft Tops: Surface Quaternary valley fill 9,240 ft Tertiary volc. Logs: Lithologic 0-9.518 ft 770-9,516 ft IES GR/N 30-1,000 ft GR/N 9,000-9,513 ft 5,200-5,300 ft ML 6,100-6,600 ft ML ML 8,875-9,512 ft Samples: Core chips 5,272-5,282 ft 7,371-9,088 ft Core chips Core chips 9.294-9.509 ft Remarks: Oil shows were reported from 7,970-8,000 ft and 9,046-9,050 ft. SHELL OIL CO. Eagle Springs Unit No. 35-35 API no.: 27-023-05010 Permit no.: 17 Location: NW1/4 NE1/4 SW1/4 sec. 35, T9N, R57E 2,997 ft from north line, 1,802 ft from west line Elevation: 4,748 ft Completed: Mar. 6, 1955 Status: Producer Field: Eagle Springs Depth: 7,500 ft Tops: Surface valley fill

> freshwater ls. valley fill

Eocene Sheep Pass ls. and sh.

3.013 ft

3,050 ft

6,595 ft

7,050 ft	Paleozoic ls. and sh.
Logs:	
Lithologic	0-7,500 ft
IES	812-7,499 ft
GR/N	50-7,500 ft
DM	870-7,290 ft
Section gauge	810-7,034 ft
ML	1,400–7,497 ft
LL	6,500–7,033 ft
Samples:	
Cuttings	0-7,502 ft
Core	1,500-7,502 ft (incomplete)

Remarks: Oil zone at 6,595-6,720 ft. Source-rock analysis and core record available at NBMG. DST's at 6,606-6,678 ft, 6,586-6,678 ft, and 6,765-6,821 ft had oil and gas shows. Oil shows also reported in Paleozoic rocks.

SHELL OIL CO.

Eagle Springs Unit No. 45-5 API no.: 27-023-05003 Permit no.: 63 Location: NE¹/₄NE¹/₄SW¹/₄ sec. 5, T7N, R57E 2.013 ft from south line, 2,496 ft from west line Elevation: 4,714 ft Completed: Feb. 2, 1962 Status: P & A Depth: 8,587 ft Tops: Quaternary valley fill Surface 8.030 ft Tertiary volc. 8,242 ft Paleozoic Logs: Lithologic 0-8,135 ft IES 816-8,586 ft ML/Cal 1,700-8,586 ft S 7,250-8,550 ft DM 816-8,500 ft Samples: Cuttings 8.048-8.300 ft Remarks: Oil shows in Paleozoic limestone. This well was plugged back to 2,614 ft and was whipstocked to 8,135 ft.

SHELL OIL CO.

Eagle Springs Unit No. 54-4 API no.: 27-023-05002 Permit no.: 59 Location: SW 1/4 SW 1/4 NE 1/4 sec. 4, T7N, R57E 2,470 ft from north line, 2,054 ft from east line Elevation: 4,720 ft Completed: Oct. 28, 1961 Status: P & A Depth: 7,485 ft Tops: Surface Quaternary valley fill 5,035 ft ls., dol., sh. Logs: Lithologic 0-7.485 ft GR/N 1.900-7.469 ft IES 794-7.465 ft S 794-7.447 ft ML 3,950-7,467 ft Samples: 6,100-6,745 ft Cuttings Remarks: Oil shows reported in limestone at 6,735 ft.

SHELL OIL CO.

Eagle Springs Unit No. 58-26 API no.: 27-023-05008

Location: SW1/4SW1/4SE1/4 sec. 26, T9N, R57E 441 ft from south line, 2,326 ft from west line Elevation: 4,778 ft Completed: May 26, 1965 Status: P & A Depth: 8,300 ft Tops: Surface Ouaternary valley fill 800 ft Tertiary undifferentiated 6.651 ft Oligocene volc. 7.735 ft Eocene Sheep Pass Fm. Logs: Lithologic 0-8.300 ft DM 3,350-7,910 ft IES 804-8,297 ft GR/N 6,550-8,298 ft ML 3,250-8,295 ft Samples: Cuttings 4-7,600 ft Core 6,161-8,300 ft (incomplete) Remarks: Source-rock analysis available at NBMG. Scattered oil shows at 6,696-8,300 ft. SHELL OIL CO. Eagle Springs Unit No. 62-35 API no.: 27-023-05012 Permit no.: 46 Location: SE1/4NW1/4NE1/4 sec. 35, T9N, R57E 1,334 ft from north line, 1,814 ft from east line Elevation: 4,757 ft Completed: Jan. 10, 1961 Status: Producer Field: Eagle Springs Depth: 7,755 ft Tops: Surface Ouaternary valley fill 6,250 ft Oligocene volc. 6,710 ft Eocene Sheep Pass Fm. 7,720 ft Pennsylvanian Ely Ls. Logs: Driller 0-7,755 ft 791-7.746 ft IES GR/N 6,100-7,752 ft S 791-7,748 ft DM 6.100-7.748 ft ML/Cal 4,800-7,751 ft Remarks: Oil zone at 6,252-6,500 ft. Core record available at NBMG. DST at 6,225-6,291 ft had an oil show. SHELL OIL CO. Eagle Springs Unit No. 81-35 API no.: 27-023-05015 Permit no.: 48 Location: NE¼NE¼NE¼ sec. 35, T9N, R57E 279 ft from north line, 597 ft from east line Elevation: 4,765 ft Completed: Mar. 3, 1961 Status: P & A Depth: 7,805 ft Tops: Surface Quaternary valley fill 6,452 ft Tertiary volc. 7,060 ft ss., sh., ls. Logs: Lithologic 0-7,805 ft IES 772-7.355 ft S/GR 772-7,801 ft DM 1,000-7,353 ft

Permit no.: 20

Remarks: Oil shows were reported from DST's in the volcanics and from 7,410-7,450 ft in sedimentary rocks.

SHELL OIL CO.

Lockes Unit No. 1 API no.: 27-023-05005 Permit no.: 18 Location: center, NW14SE14 sec. 3, T8N, R56E 1,980 ft from south line, 1,980 ft from east line Elevation: 4,732 ft Completed: Feb. 19, 1955 Status: P & A Depth: 7,324 ft Tops: Ouaternary valley fill Surface Tertiary volc. (mostly tuffs) 4,405 ft Logs: 0-7,325 ft Lithologic 714-7.324 ft IES 3.500-7.323 ft ML 80-7.324 ft GR/N 713-4,697 ft Cal Samples: 42-7.325 ft Cuttings 2.674-6.747 ft Core

Remarks: Minor gas shows were logged at 3,234-3,250 ft, 4,482-4,548 ft, and 4,778-4,866 ft. A minor oil show was logged in volcanics at 4,506-4,514 ft. Dolly (1979) reports an excellent live oil show in core from near the top of the rock.

SHELL OIL CO.

U.S.A. No. 34-25 API no.: 27-023-05321 Permit no.: 363 Location: NE¹/₄SW¹/₄SE¹/₄ sec. 25, T8N, R55E 1,100 ft from south line, 1,694 ft from east line Elevation: 4,726 ft Completed: Mar. 6, 1984 Status: P & A Depth: 2,677 ft Tops: Quaternary valley fill Surface Tertiary Garrett Volc. 940 ft Mississippian Chainman Sh. 1,584 ft Mississippian Joana Ls. 1,800 ft Mississippian Pilot Sh. 2,110 ft Devonian Guilmette Ls. 2,250 ft Logs: 68-2,678 ft Lithologic 924-2,638 ft DM 906-2,638 ft Directional survey 906-2,635 ft LSS 906-2,610 ft GR 906-2,642 ft CN/FDC Samples: 1.883-2,670 ft Cuttings 1,883-1,913 ft Core

SHELL WESTERN E & P, INC.

U.S.A. No. 41-24

API no.: 27-023-05320 Permit no.: 362 Location: NW ¼NE¼NE¼ sec. 24, T7N, R55E 200 ft from north line, 950 ft from east line Elevation: 4,708 ft Completed: Apr. 2, 1984 Status: P & A Depth: 3,235 ft Tops: Ouaternary valley fill Surface Tertiary volc. 1.920 ft 2,940 ft Devonian Guilmette Ls. Logs: 66-3,236 ft Lithologic 649-2.885 ft GR 649-2.910 ft LSS 649-2.917 ft CN/FDC 2,000-2,918 ft CBL 649-2,914 ft DI 649-2,914 ft DLL/ML 2,550-3,178 ft TS Samples: 60-3,130 ft Cuttings SUPRON ENERGY CORP. Lease F-2-4-55 No. 1 API no.: 27-023-05283 Permit no.: 278 Location: center, NE¹/₄NE¹/₄ sec. 2, T4N, R55E 660 ft from north line, 660 ft from east line Elevation: 4,875 ft Completed: Nov. 20, 1980 Status: P & A Depth: 5,950 ft Tops (from PI): Ouaternary valley fill Surface Tertiary volc. 4.827 ft Paleozoic 5.746 ft Logs: 530-5,941 ft BHCS 630-5,948 ft DI 630-5,948 ft CN/FDC Samples: 0-5,950 ft Cuttings SUPRON ENERGY CORP. Lease F-18-5-55 No. 1 API no.: 27-023-05284 Permit no.: 279 Location: SW1/4NW1/4 sec. 18, T5N, R55E 1,950 ft from north line, 850 ft from west line Elevation: 4,818 ft Completed: Aug. 16, 1980 Status: P & A Depth: 6,630 ft Tops: Quaternary valley fill Surface Tertiary volc. 1.651 ft Paleozoic Samples: 5,466 ft 170-6,630 ft Cuttings SUPRON ENERGY CORP. Lease F-27-6-55 No. 1 API no.: 27-023-05281 Permit no.: 276 Location: center, NE¹/₄SW¹/₄ sec. 27, T6N, R55E 1,980 ft from south line, 1,980 ft from west line

Elevation: 4,750 ft Completed: June 26, 1980 Status: P & A

Depth: 6,295 ft

Surface

Tops:

Quaternary valley fill

70

4,396 ft	Tertiary volc.
6,135 ft	Paleozoic
Logs:	
Lithologic	0-6,295 ft
DI	590-6,185 ft
BHCS	568-5,825 ft
Samples:	,
Cuttings	0-6,270 ft

SUPRON ENERGY CORP.

Lease F-28-8-61 No. 1 API no.: 27-023-05287 Permit no.: 275 Location: center, SW 1/4 SE 1/4 sec. 28, T8N, R61E 660 ft from south line, 1,980 ft from east line Elevation: 5,255 ft Completed: June 1, 1980 Status: P & A Depth: 4,240 ft Tops: Surface Quaternary valley fill 1,173 ft Tertiary volc. 1,380 ft Permian 2,870 ft Mississippian Scotty Wash Otz.-fault 3,720 ft Mississippian Chainman Sh. Logs: Lithologic 0-4,200 ft BHCS 602-4,214 ft DI 602-4,218 ft Samples: Cuttings 35-4.240 ft Remarks: There were several dead oil shows. Oil and gas shows in DST's at 3,350-3,458 ft and 3,545-3,600 ft.

SUPRON ENERGY CORP.

Lease F-30-4-55 No. 1 API no.: 27-023-05285 Permit no.: 280 Location: center, NW¼NE¼ sec. 30, T4N, R55E 660 ft from north line, 1,980 ft from east line Elevation: 5,101 ft Completed: Oct. 30, 1980 Status: P & A (?) Depth: 8,347 ft Samples: Cuttings 30-8,347 ft Remarks: Notice of completion was not received by NBMG.

SUTHERLAND, A. PAUL

Sutherland No. 1 API no.: 27-023-05217 Permit no.: 150 Location: NE¹/₄SW¹/₄ sec. 7, T8N, R57E 1,995 ft from south line, 3,318 ft from east line Elevation: 4,726 ft Completed: Sept. 6, 1971 Status: P & A Depth: 13,832 ft Tops: 12,375 ft Tertiary qtz. Tertiary volc. (TD) 12,455 ft Logs: 0-13,830 ft Lithologic Remarks: Numerous oil shows were reported between 6,670 ft and 11,620 ft.

TENNECO OIL CO.

GB Core Hole No. 10-A API no.: 27-023-05216 Permit no.: 136 Location: NE^{1/4}SE^{1/4}NE^{1/4} sec. 5, T8N, R60E 1,800 ft from north line, 40 ft from east line Elevation: 6,180 ft Completed: Aug. 11, 1970 Status: P & A *Depth*: 800 ft Tops: Surface Mississippian Diamond Peak Fm.(TD) Logs: Lithologic 0-800 ft Resistivity 662-790 ft GR 0~790 ft Samples: Cuttings 0-500 ft

TENNECO OIL CO.

U.S.A.-Shingle Pass No. 1 API no.: 27-023-05218 Permit no.: 151 Location: center, SE¹/₄NW¹/₄ sec. 4, T8N, R61E 1,958 ft from north line, 1,968 ft from west line Elevation: 5,301 ft Completed: July 28, 1971 Status: P & A Depth: 6,333 ft Tops: Surface Ouaternary valley fill 446 ft Tertiary volc. 2.665 ft Mississippian Chainman Sh. 3,395 ft Mississippian Joana Ls. 3,800 ft Mississippian-Devonian Pilot Sh. 3,875 ft Devonian Guilmette Fm. Logs: Lithologic 300-6,333 ft DIL 465--6,332.ft DM 470-6,334 ft **GR/FDC** 465-6.336 ft N 2,336-6,336 ft

465-6,334 ft

30-6.331 ft

6,327-6,332 ft

BHCS/GR Samples: Cuttings Core

TEXACO, INC.

Duckwater Creek No. 8-12

API no .: 27-023-05279 Permit no.: 261 Location: center, SW1/4NW1/4 sec. 8, T9N, R57E 1,980 ft from north line, 660 ft from west line Elevation: 4,790 ft Completed: July 16, 1979 Status: P & A Depth: 6,910 ft Tops: Surface Quaternary valley fill 6,330 ft Oligocene volc. Logs: Lithologic 0-6,910 ft DI 405-6,887 ft Samples: 405-6,900 ft Cuttings

Remarks: Original permit changed to Paul Bogdanich as operator on June 12, 1979. Oil show at 4,750 ft; gas shows at 4,990, 6,580, and 6,720 ft. Total depth for drillers was 6,910 ft. Total recorded depth on the DI log was 6,893 ft.

TEXACO, INC.

(FERGUSON & BOSWORTH AND ASSOCIATES) Munson Ranch Federal No. 14-1

API no.: 27-023-05236 Permit no.: 199 Location: center, SW ¼ SE ¼ sec. 14, T9N, R56E

660 ft from south line, 1,980 ft from east line Elevation: 4,769 ft Completed: May 17, 1979 Status: P & A Depth: 5,716 ft Logs: 464-4,186 ft DIL 4,010-5,713 ft DI 464-5,706 ft BHCS 3,000-3,741 ft DM 3,000-4,190 ft FIL 3,250-4,726 ft CBL 4,010-5,704 ft MLL Samples:

Cuttings 470-4,200 ft (incomplete) Remarks: Producing intervals, 3,614-4,733 ft in Tertiary volcanics, produced 5 BOPD and 32 BWPD. This well was shut in and then P & A.

TEXACO, INC.

Munson Ranch No. 11-23X API no.: 27-023-05317 Permit no.: 346 Location: NE^{1/4}SW^{1/4} sec. 11, T9N, R56E 1,910 ft from south line, 1,933 ft from west line Elevation: 4,795 ft Completed: Oct. 18, 1982 Status: TA Depth: 2,635 ft Tops: Quaternary valley fill Surface Tertiary welded tuff 2.094 ft Logs: 500-2,540 ft Lithologic 428-2,531 ft DIL Samples: 500-2.635 ft

Cuttings 500-2,635 ft Remarks: Now Western Avenue Properties. Oil shows in welded tuff below 2,094 ft. First 24 hours of production produced 408 barrels of water from welded tuff at 2,516-2,635 ft.

TEXACO, INC.

Munson Ranch No. 13-24 API no.: 27-023-05254 Permit no.: 218 Location: NW 4/SE 4/SW 4/ sec. 13, T9N, R56E 760 ft from south line, 1,880 ft from west line Elevation: 4,770 ft Completed: Aug. 12, 1979 Status: Producer Field: Trap Spring Depth: 4,629 ft Tops: Surface Quaternary valley fill 4,055 ft 4,433 ft *Logs:* Lithologic DI

BHCS Samples:

Cuttings

3.778 ft

Tertiary detrital tuff Tertiary volcanic ash tuff Oligocene tuff of Pritchards Station

2,000-4,629 ft 511-4,627 ft 512-4,624 ft

505-4,620 ft

5

Remarks: Also named the Paul Bogdanich Munson Ranch 13-24-1 or the No. 13-1. Producing at 4,455-4,502 ft. Producing formation is Tertiary tuff of Pritchards Station. Currently operated by Western Avenue Properties. DST's at 4,455-4,629 ft and 4,550-4,629 ft had oil shows. This well initially produced 36 BOPD.

TEXACO, INC.

Munson Ranch No. 13-33 API no.: 27-023-05247 Permit no.: 211 Location: center, NW14SE14 sec. 13, T9N, R56E Elevation: 4,774 ft Completed: Nov. 7, 1978 Status: Producer Field: Trap Spring Depth: 4,655 ft Tops: Quaternary valley fill Surface Tertiary welded tuff 4,272 ft Logs: 3.500-4.450 ft Lithologic 404-4.649 ft DIL 405-4,652 ft BHCS 4,300-4,655 ft Dir 3,500-4,652 ft FIL Samples: 400-4,655 ft (incomplete) Cuttings

Remarks: Oil zone at 4,300-4,450 ft. Producing formation is volcanic tuff. Currently operated by Western Avenue Properties. DST's at 4,300-4,350 ft and 4,350-4,450 ft had oil shows. This well initially produced 60 BOPD.

TEXACO, INC.

Munson Ranch No. 13-42 API no.: 27-023-05256 Permit no.: 222 Location: center, SE1/4NE1/4 sec. 13, T9N, R56E 1,980 ft from north line, 660 ft from east line Elevation: 4,776 ft Completed: Nov. 31, 1978 Status: Producer Field: Trap Spring Depth: 5,700 ft Tops: Ouaternary valley fill Surface Tertiary tuff (to TD) 4,552 ft Logs: 3,500-5,703 ft FIL 420-5,697 ft DIL 420-5,703 ft BHCS 3,500-5,703 ft DM 4,000-5,700 ft Lithologic 3,500-5,703 ft Dir Samples: 400-5,700 ft Cuttings Remarks: Name changed from well No. 13-3. Producing at 4,558-4,593 ft. Producing formation is tuff. Currently

operated by Western Avenue Properties. DST's at 4,500-4,584 ft and 4,584-4,684 ft had oil shows. This well initially produced 113 BOPD.

TEXACO, INC.

Munson Ranch No. 14-23 API no.: 27-023-05303 Permit no.: 313 Location: NE¹/4SW¹/4 sec. 14, T9N, R56E 2,009 ft from south line, 3,252 ft from east line Elevation: 4,750 ft Completed: Aug. 1, 1981 Status: Producer Field: Trap Spring Depth: 4,100 ft Tops: Surface Quaternary valley fill 3,050 ft Tertiary volc. Logs: Lithologic 441-4,100 ft DIL 440-4.094 ft Samples: Cuttings 440-4,100 ft

Remarks: Producing at 3,701-4,086 ft. Producing formation is Oligocene volcanics. Currently operated by Western Avenue Properties. This well initially produced 110 BOPD.

TEXACO, INC.

Munson Ranch No. 14-34 API no.: 27-023-05288 Permit no.: 287 Location: center, S^{1/2}SW^{1/4}SE^{1/4} sec. 14, T9N, R56E 640 ft from south line, 1,980 ft from east line Elevation: 4,770 ft Completed: Nov. 14, 1980 Status: Producer Field: Trap Spring Depth: 4,037 ft Logs: DI 461-4.012 ft Samples:

Cuttings 2,900-4,025 ft (incomplete) Remarks: Oil zone at 3,560-4,025 ft. Currently operated by Western Avenue Properties. Producing formation is volcanics(?). This well initially produced 125 BOPD.

TEXACO, INC.

Munson Ranch No. 24-1 API no .: 27-023-05245 Permit no.: 209 Location: center, SE¹/₄NW¹/₄ sec. 24, T9N, R56E 1,980 ft from north line, 1,980 ft from west line Elevation: 4,760 ft Completed: Nov. 16, 1977 Status: Water-disposal well Depth: 5,600 ft Logs: Lithologic 400-4,935 ft 394-5,606 ft DI 400-4,930 ft Cal BHCS 400-4,933 ft 4,239-5,580 ft FIL

GR/N Samples:

Cuttings

610-5,600 ft (incomplete) Remarks: Currently operated by Western Avenues Properties. DST at 5,075-5,200 ft had an oil show.

4,500-5,322 ft

TEXACO, INC.

Munson Ranch No. 24-3 API no.: 27-023-05253 Permit no.: 217

Location: center, NW1/4 NW1/4 sec. 24, T9N, R56E 660 ft from north line, 660 ft from west line Elevation: 4,767 ft Completed: Nov. 28, 1977 Status: Water-disposal well Depth: 5,012 ft Tops: Surface Quaternary valley fill 4,600 ft Oligocene Upper mbr. Stone Cabin Fm. Logs: DI 385-5,015 ft GR/N 4,100-4,740 ft Samples: Cuttings 2,400-5,012 ft (incomplete) Remarks: Water injected into a tuff at 4,736-4,648 ft and 4,340-4,385 ft. Currently operated by Western Avenue Properties. TEXACO, INC.

Munson Ranch No. 24-4 API no.: 27-023-05249 Permit no.: 213 Location: S1/2SE1/4NW1/4 sec. 24, T9N, R56E 2,035 ft from north line, 1,975 ft from west line Elevation: 4,766 ft Completed: Sept. 20, 1977 Status: Water well Depth: 1,550 ft Remarks: Water production at 1,218-1,397 ft. Currently operated by Western Avenue Properties. Tested production to 92 GPM. Faint traces of oil reported during water

TEXOTA OIL CO.

production.

Eagle Springs Unit No. 1-34 API no.: 27-023-05199 Permit no.: 107 Location: SE¼SE¼NE¼ sec. 34, T9N, R57E 2,020 ft from north line, 330 ft from east line Elevation: 4,747 ft Completed: July 23, 1967 Status: Producer Field: Eagle Springs Depth: 8,694 ft Tops: Surface valley fill 7.145 ft Oligocene volc. 7.584 ft Eocene Sheep Pass Fm. 8,582 ft Paleozoic Logs: Driller 0-8,694 ft IES 636-8,680 ft ML/Cal 6,450-8,640 ft Remarks: Oil zones at 7,146-7,496 ft, 7,584-7,781 ft, 8,290-8,350 ft, 8,446-8,474 ft, and 8,561-8,581 ft. Oil production from 7,148-7,256 ft. DST at 7,163-7,180 ft had oil and gas shows.

TEXOTA OIL CO.

Eagle Springs Unit No. 2-34 API no.: 27-023-05205 Permit no.: 116 Location: SE¹/₄SW¹/₄NE¹/₄ sec. 34, T9N, R57E 2,370 ft from north line, 1,655 ft from east line Elevation: 4,745 ft Completed: May 5, 1968 Status: P & A

Depth: 8,044 ft	
Tops:	Quaternary valley fill
Surface 7,394 ft	Tertiary volc.
Logs:	
Driller	70–8,031 ft
IES	627-8,043 ft
FDC	7,000-8,043 ft
Remarks: A slight o	il show was found in a DST at 7,395-7,428
ft.	,

TEXOTA OIL CO.

Eagle Springs Unit No. 17-35 API no.: 27-023-05073 Permit no.: 97 Location: NW 1/4 SW 1/4 SW 1/4 sec. 35, T9N, R57E 1,050 ft from south line, 200 ft from west line Elevation: 4,746 ft Completed: Apr. 14, 1966 Status: P & A Depth: 7,500 ft Tops (from American Stratigraphy Co.): Quaternary valley fill Surface Eocene Sheep Pass Fm. 6.779 ft (unconformity "A") Logs:

587-7,500 ft IES 5,100-7,500 ft ML/Cal Remarks: Minor oil shows were found in DST at 6,800-6,985 ft and 7,000-7,210 ft.

TEXOTA OIL CO.

Eagle Springs Unit No. 41-36 API no.: 27-023-05079 Permit no.: 96 Location: NE¼NE¼NW¼ sec. 36, T9N, R57E 460 ft from north line, 2,430 ft from west line Elevation: 4,790 ft Completed: Oct. 1, 1966 Status: P & A Depth: 7,566 ft Tops (from American Stratigraphy Co.): Quaternary valley fill Surface unconformity "A" 6,730 ft Eocene Sheep Pass Fm.(?) 6,870 ft Logs: 2,200-7,550 ft Lithologic 557-7,374 ft IES 557-7,375 ft Directional 5,900-7,374 ft ML/Cal

TEXOTA OIL CO.

Eagle Springs Unit No. 43-36 API no.: 27-023-05017 Permit no.: 83 Location: NE^{1/4}SE^{1/4}NW^{1/4} sec. 36, T9N, R57E 1,980 ft from north line, 2,310 ft from west line Elevation: 4,791 ft Completed: Aug. 6, 1965 Status: Producer Field: Eagle Springs Depth: 6,752 ft Tops: Quaternary valley fill Surface Eocene Sheep Pass Fm. 6.150 ft

Logs: 0-6,752 ft Lithologic 610-6,751 ft IES 1.550-6.750 ft ML CBL 6.000-6.666 ft 610-6,741 ft Directional Remarks: Oil zones at 6,128-6,236 ft, 6,258-6,412 ft, and 6,506-6,710 ft. DST at 6,147-6,416 ft had an oil show, and DST at 6,531-6,664 ft had an oil and gas show. Initial pumped production of 632 BOPD. TEXOTA OIL CO. Eagle Springs Unit No. 45-36 API no.: 27-023-05088 Permit no.: 88 Location: NE14NE14SW14 sec. 36, T9N, R57E 2,300 ft from south line, 2,310 ft from west line Elevation: 4,790 ft Completed: Nov. 18, 1965 Status: Water-disposal well Field: Eagle Springs Depth: 6,903 ft Tops (from American Stratigraphic Co.): Quaternary valley fill Surface unconformity "A"

6,055 ft 6,700 (?) ft Logs: Lithologic IES S/GR **GR/FDC**

6.055 ft

5,100-6,644 ft 5,100-6,648 ft 5,100-6,648 ft ML/Cal 595-6.638 ft Directional Remarks: Oil and gas zones at 6,064-6,085 ft, 6,095-6,103 ft, 6,145-6,165 ft, and 6,212-6,230 ft. Producing well until December 1978.

2,700-6.700 ft

595-6,650 ft

Paleozoic

Eocene Sheep Pass Fm.

TEXOTA OIL CO.

Eagle Springs Unit No. 73-35 API no.: 27-023-05022 Permit no.: 69 Location: NW 4SE 4NE 4 sec. 35, T9N, R57E Elevation: 4,774 ft (at KB) Completed: Oct. 28, 1963 Status: Producer Field: Eagle Springs Depth: 6,779 ft Tops: Quaternary valley fill Surface Paleozoic landslide 3,340 ft Tertiary valley fill 3,507 ft Oligocene volc.-6,170 ft unconformity "A" Eocene Sheep Pass Fm. 6.403 ft Logs: 650-6,750 ft Lithologic 634–6,778 ft IES 600-6,766 ft Directional 3,300-3,550 ft ML 6,100-6,778 ft ML Remarks: Oil zones at 6,170-6,280 ft and 6,537-6,708 ft. DST at 6,185-6,250 ft had an oil and gas show.

TEXOTA OIL CO.

Eagle Springs Unit No. 74-35 API no.: 27-023-05013 Permit no.: 71

Location: SW 1/4 SE 1/4 NE 1/4 sec. 35, T9N, R57E 2,272 ft from north line, 1,063 ft from east line Elevation: 4,770 ft Completed: Apr. 1, 1964 Status: Producer Field: Eagle Springs Depth: 7,045 ft Tops (from American Stratigraphic Co.): Surface **Ouaternary** valley fill 6.032 ft Oligocene volc. (Garrett Ranch ?) 6.201 ft Eocene Sheep Pass Fm. 6,995 ft Paleozoic (Elv Ls.?) Logs: Lithologic 0-7,045 ft IES 635-7,062 ft

ML/Cal 4,550-7,062 ft Directional 635-7,062 ft Remarks: Producing from Eocene Sheep Pass Fm. Oil zones at 6,201-6,457 ft and 6,672-6,800 ft. DST at 6,240-6,350 ft had an oil show, and at 6,725-6,800 ft had an oil and gas show. First flowing well in Nevada (Murray and Bortz,

TEXOTA OIL CO.

1967b, p. 11).

Eagle Springs Unit No. 84-35 API no .: 27-023-05016 Permit no.: 77 Location: SE¹/₄SE¹/₄NE¹/₄ sec. 35, T9N, R57E 2,272 ft from north line, 552 ft from east line Elevation: 4,750 ft Completed: Jan. 29, 1965 Status: Producer Field: Eagle Springs Depth: 6,909 ft Tops: Quaternary valley fill Surface 6,055 ft Oligocene volc. (Garrett Ranch Volc.?) 6,170 ft Eocene Sheep Pass Ls. 6,900(?) ft Paleozoic(?) Logs: Lithologic 556-6,905 ft IES 556-6,909 ft ML/Cal 5,900-6,904 ft Remarks: Oil zone at 6,170-6,475 ft. DST at 6,212-6,365 ft

and 6,754-6,908 ft had oil and gas shows, and at 6,674-6,740 ft had an oil show. Initial production of 210 BOPD and 0 BWPD.

TEXOTA OIL CO.

Eagle Springs Unit No. 85-35 API no.: 27-023-05014 Permit no.: 73 Location: center, NE¹/₄SE¹/₄ sec. 35, T9N, R57E 3,360 ft from north line, 660 ft from east line Elevation: 4,768 ft at KB Completed: June 6, 1964 Status: P & A Depth: 8,485 ft Tops: **Ouaternary valley fill** Surface 5,854 ft unconformity "A" 6,088 ft Paleozoic 7,390 ft Mississippian ss. (from PI) Mississippian ss. (from PI) 7,630 ft 8,248 ft Cambrian(?)

 Logs:
 IES
 611-7,502 ft

 S
 3,450-7,498 ft

 Directional
 610-6,126 ft

 Cal/ML
 3,450-7,502 ft

 Remarks:
 Oil and gas shows below 5,858 ft and in DST at

 5,858-6,142 ft.
 5,858-6,142 ft.

TRANS WESTERN LANDS, INC.

Eagle Springs Unit Penn Tex No. 1 API no.: 27-023-05103 Permit no.: 103 Location: SE¹/₄NE¹/₄NW¹/₄ sec. 30, T9N, R58E 990 ft from north line, 1,900 ft from west line Elevation: 4,867 ft Completed: Mar. 18, 1967 Status: P & A Depth: 4,420 ft Tops (from PI): Surface Quaternary valley fill 3,948 ft unconformity "A" 4,086 ft Paleozoic Logs: IES 530-4.414 ft N/Cal 3.900-4.414 ft

UNION TEXAS PETROLEUM CORP.

Nevada-Federal No. 15-1 API no.: 27-023-05348 Permit no.: 398 Location: NW 1/4 NW 1/4 NW 1/4 sec. 15, T7N, R57E 330 ft from north line, 330 ft from west line Elevation: 4,784 ft Completed: Aug. 28, 1984 Status: P & A Depth: 7,220 ft Tops: Surface Quaternary valley fill TD granite Logs: DI 605-5,980 ft CN/FDC 605-5,982 ft LSS 605-7,202 ft GR 3,700-4,700 ft Remarks: Hole bottomed in granite.

W.C. CO.

No. 1 API no.: 27-023-05019 Permit no.: 84 Location: center, NW¼SW¼ sec. 8, T10N, R58E 1,980 ft from south line, 620 ft from west line Elevation: 5,200 ft Completed: Aug. 19, 1965 Status: Water well Depth: 620 ft Tops: Surface valley fill to bottom Remarks: Trouble with the casing prevented further drilling.

W.C. CO.

No. 1-X API no.: 27-023-04999 Permit no.: NY2 Location: NW¹/SW¹/4 sec. 8, T10N, R58E 1,980 ft from south line, 628 ft from west line Elevation: 5,200 ft

Completed: Oct. 4, 1965 Status: D & A Depth: 402 ft Tops: valley fill to bottom Surface Remarks: This well was drilled and abandoned with junk in the hole. This was an attempted redrill of W.C. Co. No. 1, Permit #84.

WEST END OPETECA

Federal U.S. No. 28-1 API no.: 27-023-05021 Permit no.: 30 Location: NE¼NE¼NE¼ sec. 28, T11N. R60E 330 ft from north line, 330 ft from east line Elevation: 6,610 ft Completed: July 1958 Status: P & A Depth: 692 ft Tops: ls. to bottom Surface

WESTERN AVENUE PROPERTIES

J.N. Oil & Gas Federal No. 1 API no.: 27-023-05369 Permit no.: 449 Location: NE¹/₄NW¹/₄ sec. 34, T9N, R56E 330 ft from north line, 2,310 ft from west line Elevation: 4,739 ft Completed: Sept. 19, 1985 Status: Producer Field: Trap Spring Depth: 3,842 ft Samples: 40-3,842 ft Cuttings

Remarks: Ownership was changed to Dabros Properties Inc. Initial production of 204 BOPD from volcanics (Petroleum Information).

WESTERN AVENUE PROPERTIES Munson Ranch No. 12-24

API no.: 27-023-05363 Permit no.: 432 Location: SE¹/₄SE¹/₄SW¹/₄ sec. 12, T9N, R56E 330 ft from south line, 2,310 ft from west line Elevation: 4,783 ft Completed: Apr. 27, 1985 Status: Producer Field: Trap Spring Depth: 4,470 ft Logs: 416-3,874 ft DI Samples: 470-4,340 ft Cuttings Remarks: Oil zone at 3,795-4,470 ft. This well initially produced 227 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 12-33 API no.: 27-023-05362 Permit no.: 423 Location: center, NW1/4SE1/4 sec. 12, T9N, R56E 1,980 ft from south line, 1,980 ft from east line Elevation: 4,787 ft Completed: Mar. 27, 1985



Tops:

Logs:

Status: Producer Field: Trap Spring Depth: 4,470 ft Quaternary valley fill Surface 3.680 ft Driller DI/GR Samples:

Tertiary upper cooling unit

0-4,470 ft 458-3,820 ft

460-4,470 ft Cuttings Remarks: Oil zone at 3,510-4,470 ft. This well may be shut in. It initially produced 21 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 12-34 API no.: 27-023-05354 Permit no.: 406 Location: center, SW1/4SE1/4 sec. 12, T9N, R56E 660 ft from south line, 1,980 ft from east line Elevation: 4,782 ft Completed: Oct. 28, 1984 Status: Producer Field: Trap Spring Depth: 4,424 ft Tops: Surface Ouaternary valley fill Tertiary upper cooling unit 3.880 ft Logs: 444-4,409 ft DI Samples: Cuttings 470-4,100 ft Remarks: Oil zone at 3,920-4,424 ft. Producing formation is volcanic. This well initially produced 537 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 12-44X API no.: 27-023-05366 Permit no.: 445 Location: center, N^{1/2}SE^{1/4}SE^{1/4} sec. 12, T9N, R56E 990 ft from south line, 660 ft from east line Elevation: 4,783 ft Completed: July 5, 1985 Status: Producer Field: Trap Spring Depth: 4,550 ft Logs: **DI/GR** 447-4,248 ft Samples: 466-4,550 ft Cuttings Remarks: Oil zone at 4,030-4,550 ft. This well initially produced 46 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 13-31 API no.: 27-023-05337 Permit no.: 382 Location: NW 4 NE 4 sec. 13, T9N, R56E 684 ft from north line, 1,985 ft from east line Elevation: 4,779 ft Completed: July 25, 1984 Status: Producer Field: Trap Spring Depth: 4,480 ft Logs: 416-4,080 ft DI 4,118-4,458 ft DIL

Samples:

Cuttings 40-4,470 ft Remarks: Oil zone at 4,125-4,480 ft. Producing formation is volcanics(?). This well initially produced 233 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 13-32 API no.: 27-023-05329 Permit no.: 373 Location: center, SW1/4NE1/4 sec. 13, T9N, R56E 3,300 ft from south line, 1,980 ft from east line Elevation: 4.776 ft Completed: Aug. 18, 1984 Status: Producer Field: Trap Spring Depth: 4,515 ft Tops: Tertiary upper cooling unit 4,464 ft Tertiary second cooling unit Logs: DI/GR 440-4,273 ft Samples: Cuttings 70-4.272 ft Remarks: Oil zone at 4,110-4,515 ft. This well initially produced 80 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 13-41X

API no.: 27-023-05368 Permit no.: 448 Location: NW1/4NE1/4 NE1/4 sec. 13, T9N, R56E 330 ft from north line, 990 ft from east line Elevation: 4,780 ft Completed: Sept. 30, 1985 Status: Producer Field: Trap Spring Depth: 4,524 ft Tops: Surface Quaternary valley fill 3,500 ft Tertiary lakebed caprock 4,283 ft Tertiary tuff of **Pritchards Station** Logs: Lithologic 450-4,524 ft DIL/GR 440-4,301 ft Samples: Cuttings 445-4,524 ft Remarks: Oil zone is 4,272-4,524 ft. This well initially produced 155 BOPD.

WESTERN AVENUE PROPERTIES

Munson Ranch No. 14-24

API no .: 27-023-05319 Permit no.: 354 Location: NW¹/₄SE¹/₄SW¹/₄ sec. 14, T9N, R56E 700 ft from south line, 1,850 ft from west line Elevation: 4,772 ft Completed: Oct. 21, 1983 Status: Producer Field: Trap Spring Depth: 3,854 ft Tops: Surface **Quaternary** valley fill Tertiary volcanic ash flow 2,902 ft 3,142 ft Tertiary upper cooling unit-ignimbrites Logs: Lithologic

DI/Cal/GR

30-3.854 ft 437-3,307 ft Samples:

Cuttings 30-3,854 ft

Remarks: Oil zones at 3,740-3,770 ft and 3,800-3,854 ft. Elevation 4,772 ft at ground level and 4,789 ft at KB. Depths to tops 2,902 ft and 3,142 ft were taken from the KB. This well initially produced 159 BOPD.

WESTERN OIL LANDS, INC.

Pennington No. 7 API no.: 27-023-05080-R Permit no.: 81 Location: SE¼NE¼ sec. 36, T9N, R57E 2,145 ft from north line, 825 ft from east line Elevation: 4,836 ft Completed: Apr. 3, 1967 Status: P & A Depth: 5,670 ft Tops (from American Stratigrphic Co.): Surface Quaternary valley fill Eocene Sheep Pass Fm.(?) 5.390 ft 5,626 ft Paleozoic Logs: Lithologic 545-6.045 ft IES 513-6,048 ft Micro/Cal 1,900-6,048 ft Remarks: Originally drilled to 6,048 ft in 1965 as Steve Gose

Government No. 1-36. Western Oil Lands, Inc. redrilled to 5,670 ft. Test data from Petroleum Information.

WESTERN OIL LANDS, INC.

Pennington No. 8 API no .: 27-023-05203 Permit no.: 114 Location: W1/2SW1/4NE1/4 sec. 36, T9N, R57E 1,980 ft from north line, 1,560 ft from east line Elevation: 4,818 ft Completed: Jan. 28, 1968 Status: P & A Depth: 6,771 ft Logs: IES 5.000-6.765 ft Micro/Cal 5,000-6,770 ft

WESTERN OIL LANDS, INC.

Pennington-Federal No. 1 API no.: 27-023-05076 Permit no.: 76 Location: center, W1/2SW1/4NE1/4 sec. 36, T9N, R57E 1,980 ft from north line, 2,310 ft from east line Elevation: 4.808 ft Completed: Feb. 15, 1965 Status: Producer Field: Eagle Springs Depth: 7,020 ft Tops: Surface **Ouaternary** valley fill 6.170 ft Tertiary 6,790 ft Paleozoic Logs: IES 631-7.024 ft 6,000-7,012 ft ML Remarks: Oil zone at 6,350-6,790 ft. Producing formation is

Eocene Sheep Pass Fm. DST at 5,920-6,040 ft had oilcut mud. at 6,490-6,670 ft had oil and gas shows, and at 6,110-6,212 had mud-cut oil.

WESTERN OIL LANDS, INC.

Pennington-Federal No. 2 API no.: 27-023-05077

Permit no.: 80

Location: center, NW 4/SE 4/ sec. 36, T9N, R57E 1,980 ft from south line, 1,980 ft from east line Elevation: 4,807 ft Completed: July 5, 1965 Status: Producer Field: Eagle Springs Depth: 6,660 ft

Tops (from PI):

Surface	Quaternary valley fill
5.940 ft	Eocene Sheep Pass Fm.
	Paleozoic
6,001 ft	Paleozoic

Remarks: Oil zone at 5,890-6,040 ft. Producing formation is Eocene Sheep Pass limestone. DST at 6,280-6,380 ft had gas-cut mud and at 5,950-5,978 ft had oil and water-cut mud.

WESTERN OIL LANDS, INC.

Pennington-Federal No. 3 API no.: 27-023-05078 Permit no.: 82

Location: center, NE1/4 NE1/4 sec. 36, T9N, R57E 660 ft from north line, 660 ft from east line Elevation: 4,826 ft Completed: Sept. 6, 1965 Status: P & A Depth: 7,195 ft Tops: Surface Quaternary valley fill 5,728 ft ls. Logs: 3.825-7.195 ft Lithologic IES 510-7,079 ft 5,000-7,083 ft ML 5,000-7,082 ft FDI.

Remarks: Oil shows were found on whipstocked hole in limestone. The TD on whipstocked hole was 6,570 ft. Oil show in DST at 6,392-6,470 ft.

WESTERN OIL LANDS, INC.

Pennington-Federal No. 4 API no.: 27-023-05086 Permit no.: 86 Location: center, N¹/₂NW¹/₄SE¹/₄ sec. 36, T9N, R57E 2,310 ft from south line, 1,980 ft from east line Elevation: 4,814 ft Completed: Oct. 18, 1965 Status: Producer Field: Eagle Springs Depth: 6,381 ft Tops (from PI): Surface Quaternary valley fill Eocene Sheep Pass Fm. 5,770 ft Logs: IES 602-6,381 ft ML/Cal 4.700-6.381 ft 602-6,362 ft Directional Remarks: Oil zone at 5,770-6,140 ft.

WESTERN OIL LANDS, INC.

Pennington-Federal No. 5

API no.: 27-023-05075 Permit no.: 94

Location: SW 1/4 NW 1/4 NE 1/4 sec. 36, T9N, R57E 920 ft from north line, 2,040 ft from east line Elevation: 4,802 ft Completed: Apr. 6, 1966 Status: Producer Field: Eagle Springs Depth: 7,170 ft Tops: Surface valley fill 6,510 ft Eocene Sheep Pass Fm.unconformity "A" Eocene Sheep Pass Fm.-"1st" ls. 6,672 ft 7,070 ft Eocene Sheep Pass Fm.-"2nd" ls. Logs: 514-7,170 ft IES ML/Cal 5,500-7,170 ft 514-6,988 ft Directional Remarks: Oil zone at 6,674-6,930 ft, in Sheep Pass Fm. DST at 6.674-6.802 had an oil show.

WESTERN OIL LANDS, INC.

Pennington-Federal No. 6 API no.: 27-023-05098 Permit no.: 98 Location: center, N^{1/2}NW^{1/4}NE^{1/4} sec. 1, T8N, R57E 300 ft from north line, 1,980 ft from east line Elevation: 4,784 ft Completed: Apr. 20, 1966 Status: P & A Depth: 5,204 ft Tops: Surface valley fill 5,008 ft Paleozoic (from PI) Logs: 516-5,204 ft IES ML/Cal 3,700-5,204 ft Directional 516-5,197 ft

WEXPRO CO.

Blue Eagle Unit No. 1 API no.: 27-023-05304 Permit no.: 315 Location: W1/2NE1/4NW1/4 sec. 33, T10N, R57E 625 ft from north line, 1,804 ft from west line Elevation: 4,834 ft Completed: 1981 Status: P & A Depth: 5,954 ft Tops: Surface Quaternary valley fill Tertiary Garrett Ranch Volc. 2,820 ft 4,320 ft Eocene Sheep Pass Fm. 4,710 ft Paleozoic weatheredundifferentiated 4.950 ft Paleozoic unweatheredundifferentiated Mississippian Illipah ss. 5,135 ft 5.413 ft Mississippian Chainman Sh. 5,700 ft Mississippian Joana Ls. Logs: 790-5,945 ft DIL 790-5,948 ft BHCS CNL/FDC 3.000-5.950 ft DM 790-5,944 ft FIL 3,000-5,944 ft Samples: 30-5,900 ft Cuttings