

AREA
NV ^{Persh}
Colorado
IGH-2

G102016

WELL HISTORY

Operator: Getty Oil Company
Address: Western Division, P. O. Box 5237, Bakersfield, CA 93388
Well Name: USL-IGH #2 (Intermediate Gradient Hole)
Location: 2100' South and 2275' East of the northwest corner of Section 10 -
T. 27 S., R. 32 E., Humboldt Base & Meridian.
County & State: Pershing County, Nevada
Elevation: 4235' + ground

Date: October 1979

- 10-29 Southwest Drilling & Exploration, Inc. Rig #7 arrived on location at 08:45 a.m. Rigged up, mixed mud, picked up drill collars and drill pipe. At 16:15 p.m., a drill collar fell and hit a roughneck, taken to hospital with broken arm and lacerations. Rig shutdown at 1700 hours.
- 10-30 Spudded well with a 9-7/8" Hughes mill-tooth bit at 09:05 a.m. Drilled to 280'. Pump broke down, repaired, conditioned mud, and drilled ahead. Mud weight 68#, viscosity 50 seconds.
- 10-31 Finished drilling hole to 350'. Pulled off bottom, circulated hole, prepared to run 7" casing. Pulled up 5 singles (100'). Ran into bridge at 250'. Stuck drill pipe, good circulation, worked pipe, changed over to air, blew rocks and boulders loose, pipe free, pulled up one single (20') hit new bridge, worked pipe free. Circulating. Out of diesel fuel. Roughneck injured, crew quit and left rig. Driller back with fuel, with my help came out of hole with drill pipe. Shut rig down at 20:00 hours - no crew available.

Date: November 1979

- 11-1 Crew (3 men) on location at 06:45 a.m. Started up rig, hauled water, pulled collars out of hole, checked bit, conditioned mud, weight 68#, viscosity 52, RIH to 180'; pump would not pump, worked on pump, started conditioning hole, staged down and wiped hole every 100'. On bottom, circulating. Circulated until 1400 hours p.m. POOH. No casing tools, shut down rig, called Case Tong Services in Marysville, CA. RIH at 2000 hours. p.m., ran to bottom, turned over mud. POOH, prepared to run casing. Started in hole with 7" at 2230 hours p.m. Ran 17.5 joints 23# ST&C K-55 casing. Bottom 10' shoe joint centralized at top and each 80' thereafter. Casing on bottom at 03:15 a.m., rigged down casing tools, rigged up B. J. Hughes Cementers. Pumped

10 cu./ft. water ahead, pressured up, tried to rupture insert valve, broke off head, reciprocated casing, put back on cementing head, re-pressured, valve ruptured at 200#. Started mixing cement at 05:40 a.m., finished 05:54, pulled up, removed slips from spider, started displacing at 06:00 a.m. Finished displacing with mud, load and bumped plug with 700#. CIP at 06:25 a.m.

- 11-2 WOC for 6 hours, tore out flowline, cut off conductor and casing. Welded on 12" landing plate and 7" SOW casing-tubing head. Nippled up Shaftco-Class II 3000# Double Gate Blow-Out Preventer. Shored up rig, installed flow line to discharge pit and ran in hot with a Hughes 6-1/4" mill-tooth bit. Mud weight 68.2#, viscosity 67.
- 11-3 Could not get pitcher nipple to seal, re-welded. Roughneck injured when heater blew out. Taken to hospital. Drilled out baffle, cement, and cement guide shoe at 348'. Drilled ahead until 11:50 a.m., clutch out, shutdown, repaired, drilling ahead at 1300 hours, pump would not pump, down for repairs, welded on slips for connection. At 15:32 p.m., broke pulldown chain on left side. Kelly cocked over, difficult to drill ahead. Pump barely pumping. At 1700 hours, a roller fell out of X-member from derrick, hit roughneck, caused head lacerations, requiring stitches. Lowered mast, straightened X-member, and put rollers back in vertical tracks, drilling ahead.
- 11-4 Pulldown chain broke on right side, drilled without weight until 01:30 a.m. Cross member supporting Kelly broke, drilled until 04:05 a.m., welded on blocks. Drilled ahead, broke X-member again, pulled up into 7" casing with DP and bit, laid down mast. Removed X-member, took to town to be rewelded. Replaced member and started out of hole to change bits. COH, changed bits RIH to test BOPE. Pressured up BOPE with bit in 7" casing. Hole depth 640', closed pipe rams, press. up to 500#, blew popoff valve. Closed repressured with 200# - 500# for one hour. Held ok, no leaks. Drilling ahead. Added ICM as hole taking some fluid.
- 11-5 Drilling ahead, added chemical to mud to reduce viscosity and water loss. Pump plugged. CO and drilled ahead. Pulldown chain broke, repaired. Drilling again, pulldown chain broke again, repaired depth 860'. Mud weight 68#, viscosity 55. Pump broke down twice during night.

- 11-6 Drilling at 920', quit digging. POOH to change bits. Lost one in hole. Put on new bit, RIH to try to sidetrack. Brought in backhoe from City of Lovelock, CO pits. Trying to drill ahead, pump down, found valve spring in shut-off valve to Kelly standpipe. Replaced valve, reamed hole down, on bottom to try to sidetrack cone. Circulated, sat down and tried to drill ahead. Could not sidetrack, called Midway Fishing Tools for magnet. POOH, wait on tools.
- 11-7 Made up magnet and junk sub on D.P. RIH, milled down over cone, POOH, recovered fish. Made up new bit, RIH, on bottom, drilling ahead. POOH to check bit. Poor penetration. Bit balling up in hard clay. Put on OWG-J medium soft bit, RIH, on bottom, drilling, Bit quit cutting, circulated & POOH at 01:05 a.m. RIH with 5-3/4" drag bit. On bottom at 04:30 a.m., drilling ahead. Mud weight 68, viscosity 58.
- 11-8 Depth 1162' drilling lost circulation at 08:05 a.m. Mixed H₂O, gel, cottonseed pellets, paper ox and other materials, pumped away. Fractured zone. Bit plugged, pipe torquing up. POOH, changed bits, C.O. float collar valve. RIH with 6-1/4" Hughes mill-tooth bit on bottom drilling at 20:50 hours, drilled one foot and lost circulation. Tried to drill ahead, bit and D.P. torquing very badly. Pulled up to 580', driller shut rig down and left on 4-day break.
- 11-9 Wait on new driller from Oregon.
- 11-10 New driller and crew on location. Serviced and started up rig, POOH from 580'. Changed bits, ran in with a short tooth insert bit. Reamed tight hole from 1000' to 1040'. On bottom drilling through hard abrasive fractured material. Lost circulation. Regained, conditioned mud, drilled ahead with partial returns. Drill pipe torquing very badly. Pulled up to 700'. Shut rig down for the night.
- 11-11 Crew on location at 08:15 a.m., worked on water truck, POOH from 700'. Used torch to heat and break torqued D.P., OOH at 12:30 p.m. Broke only 36" wrench jaws trying to break off bit. Shut down rig, waiting on tools.
- 11-12 Waiting on tools.

- 11-13 Regular crew came back from "break". Welded on rig, tool joints and slips. Picked up reamer and stabilizer. RIH with rerun bit to 910'±, reamed hole to bottom, tried to drill ahead, pipe torquing. POOH, ran junk basket, no junk.
- 11-14 RIH with a 5-1/8" rock bit to drill pilot hole. On bottom, tried to make hole, spun bit off in hole. POOH. RIH with overshot, fished, could not recover. POOH, wait on fishing tools. RIH at 1600 hours to circulate and condition hole prep to run Midway Double Grab. POOH,
- 11-15 Made up Midway Tools, RIH, fished, did not recover fish. POOH.
- 11-16 Ran fishing tools, could not recover fish, put drilling crew on standby, called Schlumberger. Released Smith Logging Unit. Will run logs and complete at 1165'; present total depth.
- 11-17 RIH with bit, circulated and conditioned hole, came out of hole. Rigged up Schlumberger, ran logs and temperature tool. Completed logging. Rigged down Schlumberger and made bit run to bottom. Came out of hole. Laid down drill pipe and collars, tore out BOP, drilling spool and kill lines.
- 11-18 Made up tools and ran 37 joints and 1-10 pup of 2-3/8", 4.5# E.U.E. tubing to 1162' ±. Hung tubing from tubing head and made up 2" full opening gate valve on top. Filled tubing with water. Hole finished at 10:15 a.m. Rigged down drilling contractor and moved off well site. Well completed and contractor released 11-18-79, 12:00 a.m.

By: Wayne Shaw

1/7/80

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved,
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <u>Geothermal</u>		5. LEASE DESIGNATION AND SERIAL NO. <u>USL N-13321</u>	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <u>Temp. Obser.</u>		6. IF INDIAN, ALLOTTEE OR TRIBB NAME	
2. NAME OF OPERATOR <u>Getty Oil Company</u>		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR <u>Rt. 1, Box 197X, P. O. Box 5237, Bakersfield, CA 93388</u>		8. FARM OR LEASE NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface <u>2100'S., 2275' E. of Northwest Corner of Sec. 10 - T. 27 S., R. 32 E., HB&M</u> At top prod. interval reported below At total depth		9. WELL NO. <u>USL-IGH #2</u>	
14. PERMIT NO. <u>AGS 133-N13320</u>		DATE ISSUED <u>9-6-79</u>	
10. FIELD AND POOL, OR WILDCAT <u>Colado Area</u>		11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA <u>Sec. 10 - T. 27 S. - R. 32 E., HB&M</u>	
15. DATE SPUDDED <u>10-30-79</u>		16. DATE T.D. REACHED <u>11-16-79</u>	
17. DATE COMPL. (Ready to prod.) <u>11-18-79</u>		18. ELEVATIONS (DF, RKB, BT, GR, ETC.)* <u>4235' + GR</u>	
19. ELEV. CASINGHEAD <u>4235' Mat.</u>		12. COUNTY OR PARISH <u>Pershing</u>	
20. TOTAL DEPTH, MD & TVD <u>1165'</u>		13. STATE <u>Nevada</u>	
21. PLUG, BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY*	
23. INTERVALS DRILLED BY		ROTARY TOOLS <input checked="" type="checkbox"/> CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*		25. WAS DIRECTIONAL SURVEY MADE? <u>No</u>	
26. TYPE ELECTRIC AND OTHER LOGS RUN <u>DIL, FDC-CNL, BHCS, Gamma-Caliper, Temperature (NG)</u>		27. WAS WELL CORED? <u>No</u>	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE
<u>12"</u>	<u>32#</u>	<u>40'</u>	<u>16"</u>
<u>7"</u>	<u>23#</u>	<u>348'</u>	<u>9-7/8"</u>
CEMENTING RECORD		AMOUNT PULLED	
<u>Ready Mix</u>		<u>135 SKS plus Addit.</u>	
29. LINER RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*
30. TUBING RECORD			
SIZE	DEPTH SET (MD)	PACKER SET (MD)	
<u>2 3/8"</u>	<u>1162'</u>		
31. PERFORATION RECORD (Interval, size and number)			
32. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
33.* PRODUCTION			
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	
DATE OF TEST		HOURS TESTED	CHOKER SIZE
FLOW, TUBING PRESS.		CASING PRESSURE	CALCULATED 24-HOUR RATE
OIL—BSL.		GAS—MCF.	
WATER—BSL.		GAS-OIL RATIO	
OIL GRAVITY API (CORR.)		TEST WITNESSED BY	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)		35. LIST OF ATTACHMENTS	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.			
SIGNED: <u>Wayne A. Shaw</u>		TITLE: <u>Agent</u>	
DATE: <u>12-3-79</u>			

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

INSTRUCTIONS

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

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

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

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

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

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

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

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF, CORED INTERVALS, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, FINE TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Alluvium			Gray to buff clays, fine sands and gravels
Laked Sed.			Poorly consol. coarse gravels, cobbles, clays and sand stringers
Phyllite			Dense dark gray to black, fract. with calcite fillings

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
	1150'	1150'