



Well History

Well Name: State Lease 81 42-16

API 05123140890000	Surface Legal Location SENE 16 6N 64W	Field Name Wattenberg	State CO	Well Configuration Type Vertical
Ground Elevation (ft) 4,800.00	Original KB Elevation (ft) 4,813.00	KB-Ground Distance (ft) 13.00	Spud Date 10/13/1988 00:00	Rig Release Date 10/17/1988 00:00
			On Production Date 11/30/1988	

Job

Drilling - original, 10/13/1989 00:00

Job Category Drilling	Primary Job Type Drilling - original	Start Date 10/13/1989	End Date 10/17/1989	Objective Drill a New Codell Well
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Daily Operations

Start Date	Summary	End Date

Initial Completion, 10/18/1989 00:00

Job Category Completion/Workover	Primary Job Type Initial Completion	Start Date 10/18/1989	End Date 10/20/1989	Objective Complete a New Codell
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Daily Operations

Start Date	Summary	End Date

Sand Frac, 10/21/1989 00:00

Job Category Sand Frac	Primary Job Type Sand Frac	Start Date 10/21/1989	End Date 10/21/1989	Objective
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Daily Operations

Start Date	Summary	End Date

Recompletion, 10/25/2004 00:00

Job Category Completion/Workover	Primary Job Type Recompletion	Start Date 10/25/2004	End Date 11/9/2004	Objective Workover Codell Well
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Daily Operations

Start Date	Summary	End Date
10/25/2004	MIRU L&L Well Servicing. Blew well down pumped 50bbbls. 2%KCL water. ND well head installed B.O.P. Started pulling pipe. TOH with 226jts. of 2 3/8 production tubing. Landed depth was 6980' KB. TIH with RMOT 4 1/2 11.6 casing scraper and 3 7/8 blade bit. Tagged 17' below Codell. Tried to make more rathole. Unable to make any hole. PU power swivel made 7 additional feet. Tagged something hard and couldn't make anymore hole. Tubing was plugged up as well. Determined we had 23' of rathole below the Codell. TOH 10 stands and SDFN.	
10/26/2004	Pulled wet string. Tubing was plugged up with bumper springs and shale. RU Nuex Wireline and perforated the Codell formation from 7031-7039 3spf. .42 hole and 20.45 penetration. PU RMOT 4 1/2 Arrowset 11.6# frac packer. Pressure tested tubing to 8000#psi. Ran 215jts of 2 7/8 tubing. Packer is set at 6672'KB. ND BOP. NU 5000# wellhead. Loaded the backside with 2% KCL water. Pressure tested annulus to 1100#psi for 10 minutes. Casing held. SDFN.	
10/27/2004	Move in BJ Services for a Vistar gel frac. Well was frac'd with 217,520# of 20/40 white sand and 8000# of resin coated. Our gel load was 24 lbs Vistar. Total barrels to recover is 2625bbbls. Well broke down at 3bpm @ 2650#. Max treating pressure was 5108psi, 4468 average treating pressure. We averaged 14.7bpm. ISDP 3545psi.	
10/28/2004	Well had 150#psi. Waited for the pressure to drop. TOH with frac string. RIH with 35 stands of production string for kill string. SDFN	
10/29/2004	TOH with kill string. RU Hydrotesters. TIH with 228jts. of 2 3/8 production tubing. Tested joints to 6000#psi. Tagged sand with 228 jts. RU JU head and circulated 2 joints (230) until we tagged something very hard (7069'). Rolled the hole clean. Pulled out 3 joints. Landed the tubing with 227 jts. of 2 3/8 tubing for a tubing measured depth of 7001.00KB. There is a 12' wireline correction between the tubing and wireline. Take that into consideration the end of the tubing is at 7012' or 16' above the Codell. Dropped the standing valve and chased it to bottom with 2' broach. SDFN. We'll rig down and move to the Carlson 43-7.	
11/8/2004	Service Rig # 99: MIRU. W/H-120/840. Late in the day. SDFN.	
11/9/2004	Service Rig # 99: Turned well into production. Well running good. RDMO.	

Recompletion, 5/1/2007 00:00

Job Category Completion/Workover	Primary Job Type Recompletion	Start Date 5/1/2007	End Date 5/11/2007	Objective
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Daily Operations

Start Date	Summary	End Date
5/1/2007	MIRU Ensign Rig #8. Waited to be 'catted' out of the State 23-8. Spotted in pump, waited for water tank. SDFN Daily Cost \$5030.00	
5/2/2007	TOH with 2 3/8 production string. Well was landed with 227 joints of 2 3/8 J-55 4.7# EUE of tubing. Landed depth was 7001.20'KB. TIH with STS 4 1/2 11.6# casing scraper and 227 joints of tubing. We tested the tubing to 6000# using Hole Seekers Testing. PU 2 tag joints and tagged PBTD @7061'KB. We tried in 05' to make more rat hole. PU a power swivel and got mostly plunger parts back at the return line. We couldn't make anymore hole. Rolled the hole. TOH with scraper and tubing. SDFN Daily Cost \$5400.00 Cost to Date \$10,430.00	



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			On Production Date 11/30/1988	

Daily Operations

Start Date	Summary	End Date
5/3/2007	<p>PU STS 4 1/2 WLTC bridge plug and 227 joints of 2 3/8 tubing. Set the plug @ 7001'. Spotted sand TOH laying down production string. RU Nuex wireline to run Gamma Ray and CCL. Corrected 12'. Perforated the Niobrara 'B' bench from 6858-6872' 3spf, (14' 42 holes) using 3 1/8 slick gun Hero charges. Came up hole to perforate the 'A' bench from 6744-6748' 2spf, (4' 8 holes) using 3 1/8 slick gun Hero charges. TOH with gun and all shots had fired. TIH with 90 joints of 2 7/8 tubing to spot sand. SD due to high winds.</p> <p>Daily Cost \$ Cost to Date \$ AFE Est. Cost \$</p>	
5/4/2007	<p>PU 102 joints of 2 7/8 frac string. Tubing is spotted @ 6908, dumped 5 1/2 sacks of 20/40 of sand. Displaced 35 barrels of KCL water to cover up the 'C' bench of the Niobrara. TOH with tubing. PU STS 4 1/2 11.6# casing packer and 192 joints of 2 7/8 6.5# N-80 frac string (belongs to Action) and tested it to 9000#. Set the packer @ 6322'KB. Pressure tested the casing to 1200# for 10 minutes. Casing tested OK. RD move rig to the Nelson 42-33.</p> <p>Daily Cost \$15,050.00 Cost to Date \$38,880.00 AFE Est. Cost \$ 80 6.5# TUBING ANNULUS TESTED TO 1200# TESTED TO 9000#</p> <p style="text-align: right;">PACKER IS LANDED @ 6322'KB 192 JOINTS OF 2 7/8 N-</p>	
5/7/2007	<p>Niobrara Refrac: MIRU Halliburton Energy Services. Performed a Niobrara ReFrac stimulation using 1669 bbls slickwater pad and 2348 bbls of Silverstim 24# fluid system, 238100 lbs of 30/50 white sand and 12000 lbs of SB Excel 12/20 resin coated proppant. Niobrara perms @ 6744-6748 and 6858-6872' (50 New Shots). Pumped 1-4 ppg stages of 30/50 white sand, 4 ppg SB Excel proppant, flush well to .5 bbl short of top Niobrara perforation (42.7 bbls), shut down, record ISIP = 3556 psi. RD HES turn well on to flowback. Transfer 25 bbls from hydration unit to flowback tank. MTP = 7445 psi, ATP = 7043 psi, AIR = 26.3 bpm. Pressure response was slightly positive during entire treatment. Operationally treatment went ok. Pumped treatment via 2 7/8" tbg. Turn well on to flowback on a 14/64" choke.</p> <p>Daily Cost \$124700 Cost to Date \$159580 AFE Est. Cost \$</p>	
5/9/2007	<p>Tub 110, Csg V, MIRU rig, pump & tank, blow tubing down, load tubing with 25 Bbls 2 % KCL, ND WH & NU BOP, release packer, TOH laying down Action 2 7/8" frac string, Pulled 192 jts & STS Arrow set 1 packer, change over to 2 3/8" equipment, PU NC/SN 1.10', 193 jts 2 3/8" J-55 8rd EUE 4.7# tubing talling, shut well in with 193 jts @ 5945.36' KB,, (Kicked out 35 jts = 1055.84' W/ pitts in the pin ends) SDFN.</p> <p>Daily Cost \$5350</p> <p>Cost to Date \$40230 AFE Est. Cost \$</p>	
5/10/2007	<p>TUB 0/ CSG 0, Continue talling in 2 3/8" production, tag sand @6908.66' KB, 12' in @ rig slips W/ jt 224, TOH W/ tubing & PU WLTC RBP retrieving head, TIH 224 jts rig up circulation equipment, circulate sand F/ 6908.66' to 7001' circulate clean on top of RBP, release plug TOH, shut well in, SDFN.</p> <p>Daily Cost \$5000 Cost to Date \$44130 AFE Est. Cost \$</p>	
5/11/2007	<p>CSG 300Psi, blow well down, PU NC/SN 1.10' TIH, tag 10' in @ GL W/jt 229 @ 7060.31', pull up to 226 jts install 2-10' subs, 1-4' sub, drop 2 3/8" standing valve, run PDCs broach, stacked out @ 6000', pull broach out, TOH W/ 2 3/8" tubing, found standing valve & packer element in jt 197@ 6089.58', TOH remaining pipe, trip back in NC/SN 1.10' 226 jts 6983.60', 2-10' subs & 1-4' sub, 8.00' KB , drop standing valve & broach tubing to SN, land tubing @ 7015.70' KB, shut well in, RD rig, pump & tank, clean location , move rig away from WH, SDFN.</p> <p>Daily Cost \$4900</p> <p>Cost to Date \$53,970 AFE Est. Cost \$</p>	

Mechanical Integrity Test, 2/1/2016 06:00

Job Category Completion/Workover	Primary Job Type Mechanical Integrity Test	Start Date 2/1/2016	End Date 2/4/2016	Objective TEST TBNG, SET RBP, PERFORM MECHANICAL INTEGRITY TEST, RETURN TO PRODUCTION
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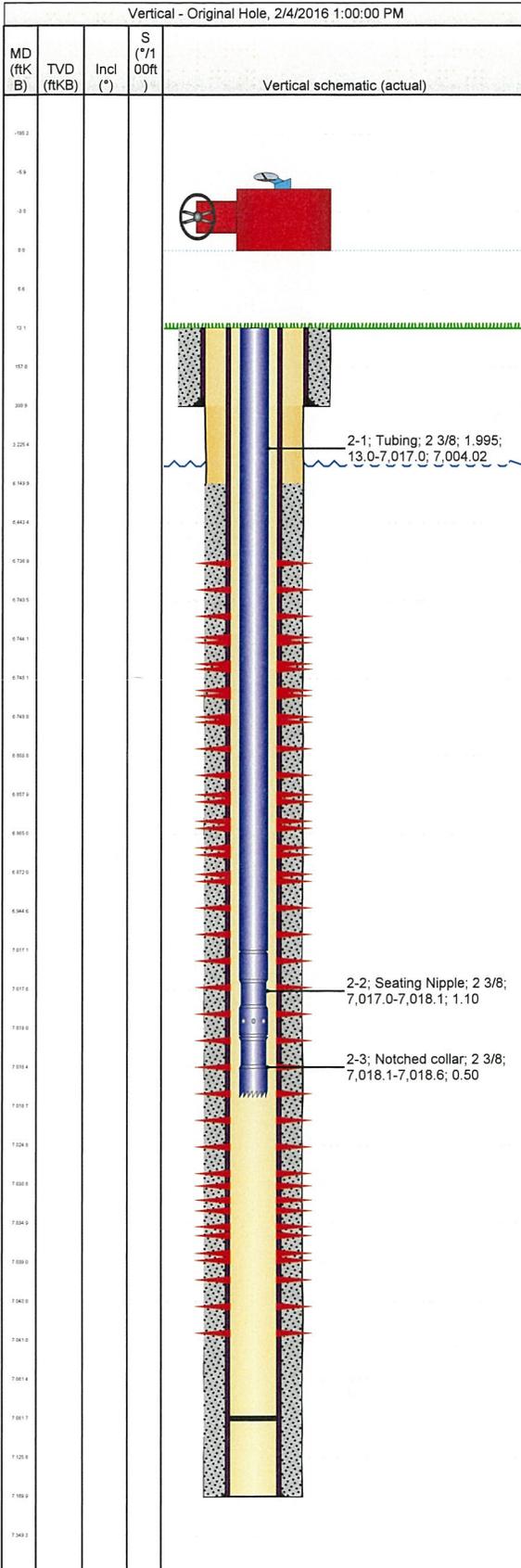
Well History

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			On Production Date 11/30/1988	

Daily Operations		
Start Date	Summary	End Date
2/1/2016	MIRU ENSIGN RIG 313. ITP: 900 PSI ICP: 900 PSI ISCP: 0 RIGGED UP PUMP AND LINES. TESTED LINES TO 2000 PSI. BLEW WELL DOWN TO RIG TANK. KILLED WELL WITH 60 BBLS OF CLAYTREAT/BIOCIDE WATER. ND WELLHEAD. FUNCTION TESTED AND NU BOPS. PU 2 JNTS OF 2-3/8" TBNG AND TAGGED WITH 45'. LD TAG JNTS. TALLY OUT OF HOLE WITH 2-10' SUBS, 1-4' SUB AND 226 JNTS OF 2-3/8" 4.7# J-55 8RD EUE TBNG, SN/NC. SECURED WELL. SDFD	2/1/2016
2/3/2016	TP: 0 PSI CP: 0 PSI SCP: 0 PSI HELD SAFETY MEETING. MIRU PICK TESTERS. PU STS 3-7/8" BLADE BIT AND 4-1/2" 11.6# CASING SCRAPER AND TESTED IN HOLE TO 6000 PSI WITH 226 JNTS TO 7015' KB. ALL TBNG TESTED GOOD. RDMO TESTER. ROLLED GAS AND OIL OUT OF HOLE. POOH TO DERRICK. LD BIT AND SCRAPER. PU STS WLTC 4-1/2" 11.6# RBP AND RIH WITH 216 JNTS OF 2-3/8" TBNG. SET RBP AT 6691.50' KB. LD 1 JNT. ROLLED HOLE CLEAN. TESTED CASING TO 695 PSI FRO 15 MINUTES WITH RIG PUMP. HELD GOOD. BLEED OFF PRESSURE. LD 5 JNTS. SECURED WELL. SDFD	2/3/2016
2/4/2016	TP: 0 PSI CP: 0 PSI SCP: 0 PSI HELD SAFETY MEETING. POURED NEW ROPE SOCKET ON SANDLINE. MIRU PICK TESTERS. LOADED CASING. PRESSURED TO 557 PSI. HELD AND CHARTED FOR 15 MINUTES. PRESSURE TO 555 PSI AFTER 15 MINUTES. GOOD TEST. RDMO TESTERS. NO STATE REPRESENTATIVE WAS PRESENT FOR TEST. RIH WITH 6 JNTS. RELEASED RBP AND POOH TO DERRICK. LD RBP. RIH WITH NC/SN AND 226 JNTS OF 2-3/8" 4.7# J-55 8RD EUE TBNG. ND BOPS. LAND TBNG AT 7018.62' KB. (9.38' ABOVE TOP CODELL PERF AND 18' HIGHER THAN PREVIOUSLY LANDED) NU WELLHEAD. BROACHED TBNG TO SN WITH 1.901" BROACH. SWABBED WELL. IFL: 1500' FFL: 3900'. RECOVERED 30 BBLS OF WATER. SECURED WELL. RIGGED DOWN. SDFD 13.00' KB 7004.02' 226 JNTS 2-3/8" 4.7# J-55 8RD EUE TBNG 1.60' SN/NC 7018.62' KB	2/4/2016

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Tubing								
Tubing Description	Set Depth (ftKB)	Run Date	Run Job					
Tubing - Production	7,018.6	2/4/2016	Mechanical Integrity Test, 2/1/2016 06:00					
Pull Date								
Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Jts	Top (ftKB)	Btm (ftKB)
Tubing	2 3/8	1.995	4.70	J-55	7,004.0 2	226	13.0	7,017.0
Seating Nipple	2 3/8				1.10	1	7,017.0	7,018.1
Notched collar	2 3/8				0.50	1	7,018.1	7,018.6