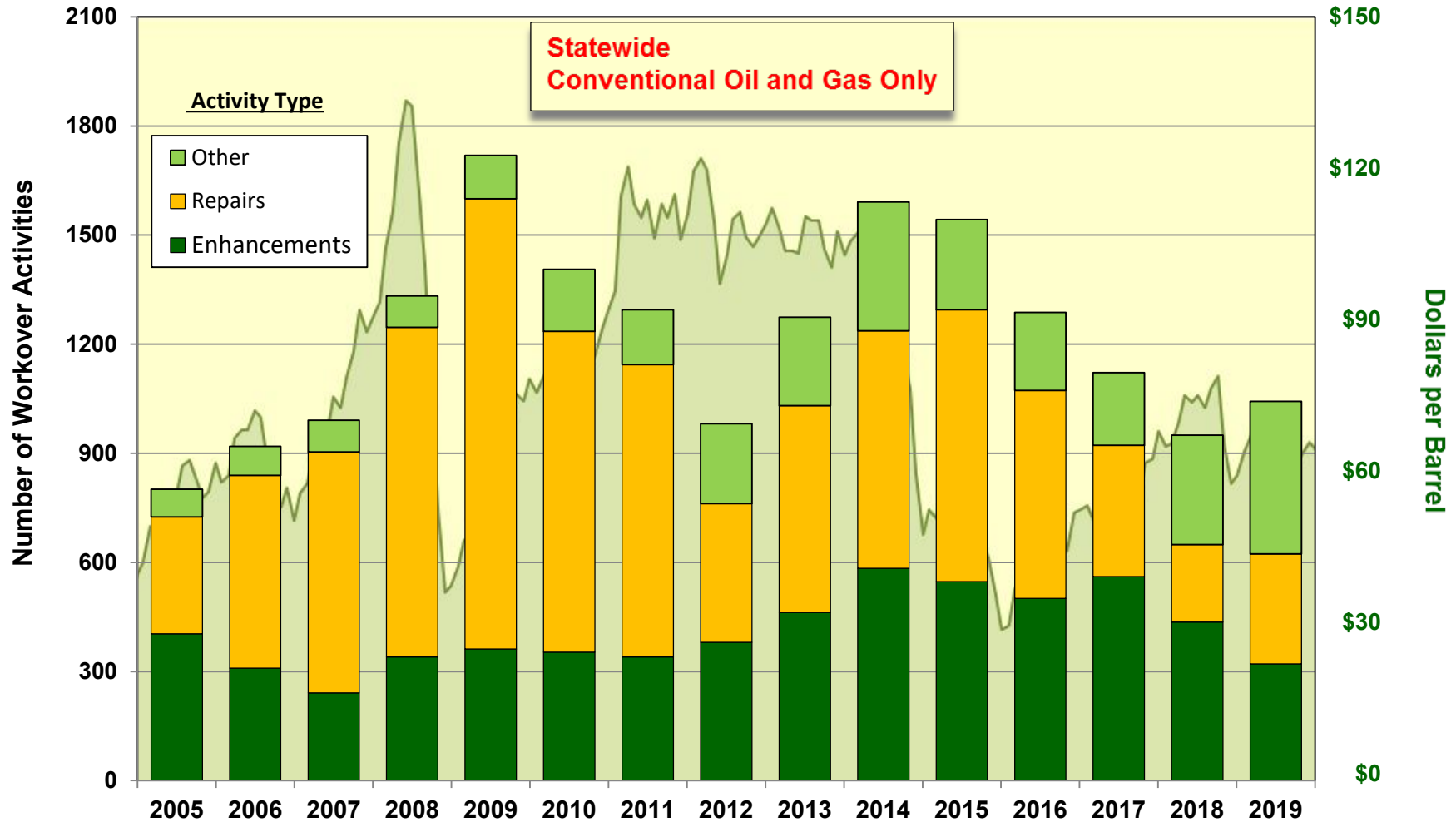




Well-Work Activities (2005 – 2019*)

Statewide: Conventional Oil and Gas Only**

Background: West Coast Monthly Average Spot Price for Alaska North Slope Crude Oil (Dollars per Barrel)



Total Activities since 2004 = 18,960

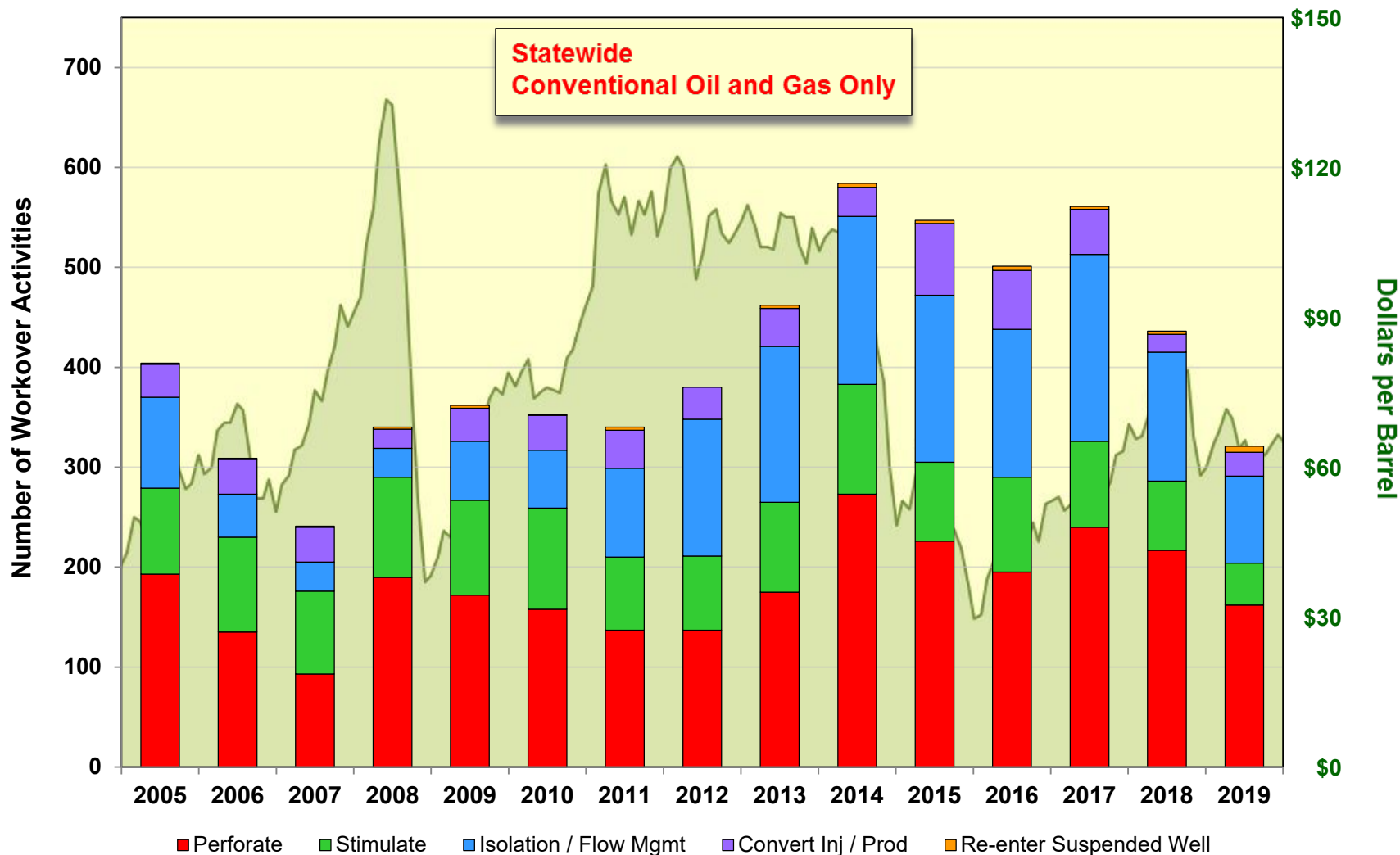
**Does not include coal- or shale-bed natural gas, geothermal, or gas hydrate wells



Workover Activity by Type (2005 – 2019*)

Alaska Wells: Production Enhancements

Background: West Coast Monthly Average Spot Price for Alaska North Slope Crude Oil (Dollars per Barrel)



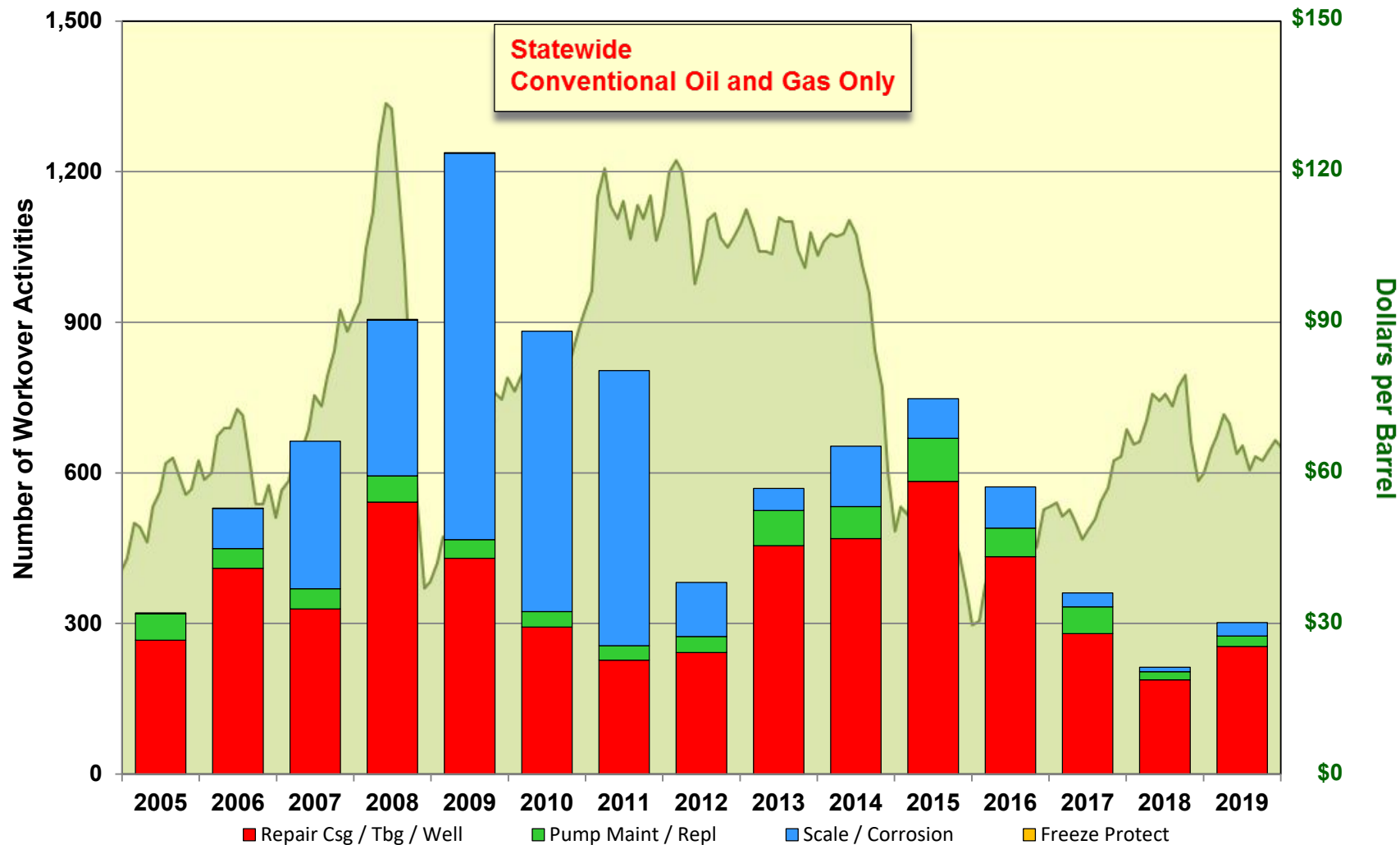
Total Enhancement Activities Since 2004 = 6,507



Workover Activity by Type (2005 – 2019*)

Alaska Wells: Maintenance

Background: West Coast Monthly Average Spot Price for Alaska North Slope Crude Oil (Dollars per Barrel)



Total Maintenance Activities Since 2004 = 9,380



Workover Activities (2004 – 2019^{*})

Statewide: Conventional Oil and Gas Only^{**}

Operation Type	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Grand Total
Enhancement	366	404	309	241	340	362	353	340	380	462	584	547	501	561	436	321	6,507
Maintenance	236	321	530	663	906	1,238	882	804	382	569	653	748	572	361	213	302	9,380
Other	103	76	80	87	87	119	171	151	219	243	354	248	214	200	301	420	3,073
Grand Total	705	801	919	991	1,333	1,719	1,406	1,295	981	1,274	1,591	1,543	1,287	1,122	950	1,043	18,960

^{**}Does not include coal- or shale-bed natural gas, geothermal, or gas hydrate wells



Workover Operations Class and Category Table

Definition	Class	Category
Acid Treatment	Stimulate	Enhancement
Annulus Corrosion Inhibitor	Scale / Corrosion	Maintenance
Capillary String	Stimulate	Enhancement
Cement Squeeze	Isolation / Flow Mgmt	Enhancement
Cement Squeeze	Isolation / Flow Mgmt	Enhancement
Cement Squeeze	Isolation / Flow Mgmt	Enhancement
Control Flow Mgt Zone	Isolation / Flow Mgmt	Enhancement
Convert to Injection	Convert Inj / Prod	Enhancement
Convert to Producer	Convert Inj / Prod	Enhancement
ESP Maintenance or Replacement	Pump Maint / Repl	Maintenance
Freeze Protect Well	Freeze Protect	Maintenance
Gravel Pack Maintenance	Stimulate	Enhancement
Isolation Sleeve	Isolation / Flow Mgmt	Enhancement
Jet Pump Maint or Replacement	Pump Maint / Repl	Maintenance
K Valve Maintenance	Repair Csg / Tbg / Well	Maintenance
Kill String Maintenance	Repair Csg / Tbg / Well	Maintenance
Outer Annulus Cement Maint	Repair Csg / Tbg / Well	Maintenance
Packer Maintenance	Repair Csg / Tbg / Well	Maintenance
Perforate New Pool	Perforate	Enhancement
Perforated	Perforate	Enhancement
Plug Milling Operations	Other	Enhancement
Plug Perforations	Isolation / Flow Mgmt	Enhancement
Re-enter Suspended Well	Re-enter Suspended Well	Enhancement
Repair / Replace Casing	Repair Csg / Tbg / Well	Maintenance
Repair / Replace Tubing	Repair Csg / Tbg / Well	Maintenance
Repair Well	Repair Csg / Tbg / Well	Maintenance
Replace Tubing	Repair Csg / Tbg / Well	Maintenance
Rod Pump Maint or Replacement	Repair Csg / Tbg / Well	Maintenance
Scale Inhibitor Squeeze	Scale / Corrosion	Maintenance
Scale Removal	Scale / Corrosion	Maintenance
Stimulate	Stimulate	Enhancement
Tubing Patch	Repair Csg / Tbg / Well	Maintenance
Velocity String	Stimulate	Enhancement
Water Wash	Stimulate	Enhancement
Well Fractured	Stimulate	Enhancement



Operations Included in “Other” Class and Category

Description	Definition	Class	Category
Report: Abandon	Abandon	Other	Other
Report: Annular Disposal	Annular Disposal	Other	Other
Report: Change Completion Type	Change Completion Type	Other	Other
Report: Operational Shutdown	Operational Shutdown	Other	Other
Report: Other	Other	Other	Other
Report: Surface Plug	Surface Plug	Other	Other
Report: Suspend	Suspend	Other	Other
Report: Temperature Survey	Temperature Survey	Other	Other
Report: Well Secure or Plug Set	Well Secure or Plug Set	Other	Other
Report: Well Testing Completed	Well Testing Completed	Other	Other

Source: AOGCC RBDMS Database



West Coast Monthly Average Spot Price for Alaskan North Slope Crude Oil (Dollars per Barrel)

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1988	\$14.23	\$14.03	\$13.79	\$15.29	\$14.86	\$14.14	\$13.70	\$13.63	\$12.58	\$11.34	\$11.36	\$13.23
1989	\$15.11	\$15.99	\$17.25	\$19.37	\$17.64	\$17.00	\$16.78	\$16.04	\$16.62	\$17.27	\$17.49	\$19.07
1990	\$20.00	\$19.30	\$17.91	\$14.82	\$14.38	\$13.20	\$15.55	\$25.99	\$32.16	\$31.53	\$28.79	\$24.02
1991	\$20.57	\$15.74	\$17.02	\$17.56	\$16.67	\$16.36	\$17.25	\$17.18	\$17.37	\$18.47	\$17.57	\$14.83
1992	\$14.92	\$15.30	\$15.50	\$16.96	\$18.03	\$20.20	\$19.40	\$17.97	\$18.46	\$18.71	\$17.46	\$16.33
1993	\$15.62	\$16.78	\$17.35	\$18.17	\$17.47	\$16.02	\$14.84	\$15.42	\$14.98	\$15.39	\$13.07	\$10.29
1994	\$11.66	\$12.59	\$12.91	\$14.96	\$16.47	\$16.43	\$16.52	\$16.66	\$16.11	\$16.02	\$16.71	\$15.38
1995	\$16.16	\$17.14	\$17.31	\$18.36	\$18.43	\$17.43	\$16.23	\$16.72	\$16.65	\$15.96	\$15.88	\$16.94
1996	\$17.23	\$17.78	\$20.40	\$22.04	\$19.65	\$18.98	\$19.79	\$19.90	\$21.69	\$22.60	\$21.50	\$23.66
1997	\$23.57	\$21.03	\$20.07	\$18.54	\$19.41	\$17.30	\$17.48	\$17.98	\$18.09	\$19.59	\$18.33	\$16.39
1998	\$14.79	\$13.39	\$12.25	\$12.41	\$12.31	\$11.62	\$12.92	\$12.49	\$14.13	\$13.38	\$11.47	\$9.39
1999	\$10.69	\$10.43	\$13.07	\$15.64	\$15.86	\$15.82	\$18.16	\$20.08	\$22.96	\$21.83	\$23.65	\$24.54
2000	\$25.74	\$27.65	\$28.01	\$23.83	\$27.15	\$29.62	\$27.63	\$29.40	\$32.25	\$31.56	\$32.74	\$23.72
2001	\$24.37	\$26.02	\$24.70	\$25.55	\$26.70	\$25.82	\$24.60	\$24.12	\$23.21	\$19.45	\$17.23	\$16.69
2002	\$17.52	\$19.14	\$22.76	\$24.99	\$25.87	\$24.16	\$25.82	\$27.39	\$28.76	\$27.53	\$24.69	\$28.03
2003	\$31.91	\$35.20	\$32.59	\$25.59	\$26.19	\$29.35	\$29.17	\$30.22	\$27.09	\$28.55	\$29.11	\$30.67
2004	\$33.10	\$33.66	\$35.50	\$35.43	\$39.07	\$36.73	\$39.44	\$43.12	\$42.71	\$48.56	\$42.15	\$36.66
2005	\$41.12	\$43.59	\$50.63	\$49.75	\$46.77	\$53.67	\$56.67	\$62.40	\$63.47	\$60.37	\$56.11	\$57.17
2006	\$62.85	\$59.26	\$60.61	\$67.74	\$69.32	\$69.50	\$73.10	\$71.74	\$62.33	\$54.27	\$54.26	\$58.13
2007	\$51.52	\$57.00	\$59.01	\$63.92	\$64.76	\$69.11	\$75.93	\$73.83	\$79.72	\$84.77	\$92.98	\$88.64
2008	\$91.16	\$94.42	\$105.06	\$112.37	\$125.41	\$133.78	\$132.87	\$115.98	\$101.86	\$73.65	\$53.94	\$37.70
2009	\$39.01	\$42.78	\$47.75	\$46.56	\$58.23	\$69.80	\$64.53	\$71.52	\$69.20	\$74.28	\$76.52	\$75.12
2010	\$79.34	\$76.74	\$79.45	\$82.23	\$74.23	\$75.66	\$76.53	\$75.78	\$75.27	\$82.41	\$83.93	\$89.75
2011	\$92.56	\$96.79	\$115.34	\$120.86	\$113.57	\$111.08	\$114.47	\$106.95	\$113.74	\$110.84	\$115.58	\$106.55
2012	\$111.87	\$119.65	\$122.68	\$120.95	\$110.55	\$98.06	\$103.75	\$110.79	\$111.94	\$107.30	\$105.24	\$107.31
2013	\$109.88	\$112.76	\$108.93	\$104.58	\$104.42	\$104.01	\$111.34	\$110.57	\$110.48	\$104.82	\$101.28	\$108.19
2014	\$103.82	\$106.30	\$107.91	\$107.36	\$108.06	\$110.76	\$107.63	\$101.78	\$96.05	\$84.91	\$77.41	\$60.90
2015	\$48.87	\$53.85	\$52.28	\$58.49	\$64.37	\$64.40	\$56.20	\$48.26	\$48.83	\$48.20	\$44.24	\$37.15
2016	\$30.22	\$31.14	\$38.10	\$41.79	\$46.61	\$47.40	\$44.07	\$44.17	\$44.51	\$49.39	\$45.76	\$53.26
2017	\$53.90	\$54.72	\$51.81	\$53.34	\$50.72	\$47.38	\$49.18	\$51.37	\$54.82	\$57.55	\$62.86	\$63.79
2018	\$69.15	\$66.20	\$66.61	\$71.04	\$76.12	\$74.75	\$76.20	\$73.82	\$77.64	\$80.03	\$66.68	\$58.86
2019	\$60.40	\$65.02	\$67.94	\$72.16	\$70.30	\$64.32	\$65.99	\$61.14	\$63.83	\$62.83	\$64.97	\$66.98

Source: Alaska Department of Revenue, Tax Division, 2020, *ANS West Coast Average Spot Price (for the period from 1988 through 2019)*, available online at: <http://www.tax.alaska.gov/programs/oil/prevaling/ans.aspx>.