

Report Date: 9/12/2018

Bedrock Aquifer Evaluation Determination Tool

Denver Basin Aquifer - Specific Location Determination Tool

Applicant: PDC - State 5519 8A
(API 123-20550)

Receipt No:

Evaluated By:

Location: NW 1/4 of SE 1/4 of Sec. 8, T.5N, R.63W. (1415 SSL, 1484 ESL)

Basin Designation: Location is within the UNKNOWN Designated Ground Water Basin.

Ground Surface Elevation: 4750 Feet **Number of Acres:** 160

Warning! The depth intervals estimated in this area may vary from actual conditions due to lack of data and/or structural complexity.

Aquifer	Elevation (ft)		Net Sand	DEPTH (ft)		ANNUAL APRPROP. (A-F)	STATUS
	Bot	Top		Bot	Top		
Upper Dawson	--	--	--	--	--	--	--
Lower Dawson	--	--	--	--	--	--	--
Denver	--	--	--	--	--	--	--
Upper Arapahoe	--	--	--	--	--	--	--
Lower Arapahoe	--	--	--	--	--	--	--
Laramie-Fox Hills	--	--	--	--	--	--	--

NOTE: 'E' indicates a location is at an aquifer boundary and the values may be more approximate.

Plug and Abandon Surface Casing Check

Operator

PDC

API or Doc #

State 5519 8A (API 123-20550)

SB5 Base of Fox Hills

NA

Deepest Water Well Within One Mile / number of wells

0' / 4

Deepest Water Well Within Two Miles / number of wells

400' / 34

Sussex / Shannon Production within one mile

N / N

Operator Existing Surface Casing Depth

370'

Production Casing to be pulled

0'

Water Wells Selected From Map
Filter Results by Depth

WELL DESCRIPTION	LOCATION	WELL INFORMATION		
		Depth	Top Perf	Bottom Perf Aquifer
Receipt=0918783, Permit=0000000-- GREELEY CITY OF	SWNE 4 5 N-63W	0	0	0 GW
Receipt=0918781, Permit=0000000-- GREELEY CITY OF	SENE 5 5 N-63W	0	0	0 GW
Receipt=03357320, Permit=0163702-- CENTRAL COLO WTR CONSERVANCY DIST	NESE 6 5 N-63W	0	0	0 UNC
Receipt=0918791, Permit=0000000-- GREELEY CITY OF	NENE 7 5 N-63W	0	0	0 GW
Receipt=0918782, Permit=0000000-- GREELEY CITY OF	NENE 8 5 N-63W	0	0	0 GW
Receipt=0918792, Permit=0000000-- GREELEY CITY OF	SWNE 9 5 N-63W	0	0	0 GW
Receipt=0918787, Permit=0000000-- GREELEY CITY OF	NESW 9 5 N-63W	0	0	0 GW
Receipt=0918785, Permit=0000000-- GREELEY CITY OF	SENE 10 5 N-63W	0	0	0 GW
Receipt=3665550, Permit=0295201-- WELLS RANCH	NENW 15 5 N-63W	0	0	0 KLF
Receipt=0918793, Permit=0000000-- GREELEY CITY OF	NWSW 15 5 N-63W	0	0	0 GW
Receipt=3653736C, Permit=0287429-- WELLS STEVE	SESW 15 5 N-63W	400	42	380 KLF
Receipt=0918794, Permit=0000000-- GREELEY CITY OF	NENE 17 5 N-63W	0	0	0 GW
Receipt=3610303, Permit=0271498-- S L W RANCH	NWSW 18 5 N-63W	38	25	35 GW
Receipt=0254374, Permit=0000000-- PUTNAM LAKE	NWNE 19 5 N-63W	0	0	0 GW
Receipt=0024667, Permit=0094454-VE- COCKROFT DAIRY FARMS	SENE 19 5 N-63W	0	0	0 GW
Receipt=0201421, Permit=0012495-R-R CHRISTENSEN F	SENE 19 5 N-63W	48	28	44 GW
Receipt=0376550A, Permit=0183901-- COCKROFT DAIRY FARMS	SENE 19 5 N-63W	60	0	0 GW
Receipt=0376550B, Permit=0183901--A COCKROFT DAIRY FARMS	SENE 19 5 N-63W	56	36	56 GW
Receipt=3621287, Permit=0275447-- COCKROFT LOREN	NENW 19 5 N-63W	12	6	12 GW
Receipt=0535375A, Permit=0262443-- KLIPPERT JOHN R III	NESE 19 5 N-63W	0	0	0 GW
Receipt=0535375B, Permit=0262443--A KLIPPERT JOHN R III	NESE 19 5 N-63W	49	36	45 GW

Receipt=9061985, Permit=0014526-R- KLIPPERT JOHN R III & DEBORAH L	NESE 19 5 N-63W	36	0	0 GW
Receipt=C620808, Permit=0000808-WCB- PETERSON PAT	NWSW 20 5 N-63W	42	0	0 GW
Receipt=9061284, Permit=0012751-R- 70 RANCH LLC	NWSW 20 5 N-63W	40	0	0 GW
Receipt=9061285, Permit=0012752-R- 70 RANCH LLC	NWSW 20 5 N-63W	40	0	0 GW
Receipt=0016567, Permit=0090331-VE- NATIONAL HOG FARMS	NWSW 20 5 N-63W	0	0	0 GW
Receipt=0315515A, Permit=0158348-- NATIONAL HOG FARMS	NWSW 20 5 N-63W	50	0	0 GW
Receipt=0315515B, Permit=0158348--A NATIONAL HOG FARMS	NWSW 20 5 N-63W	43	23	43 GW
Receipt=9062589, Permit=0019244-- RIVERSIDE IRRIGAT	SWSW 20 5 N-63W	44	0	0 GW
Receipt=C620655, Permit=0000655-WCB- SMITH D V	NESE 12 5 N-64W	80	59	80 GW
Receipt=0210976, Permit=0118414-- MC KELVEY D	NENE 13 5 N-64W	0	0	0 GW

Oil and Gas Wells Selected

Filter Results by Formation

WELL DESCRIPTION	LOCATION ID	LOCATION	WELL INFORMATION			
05-123-18865, UPV 5-14H3 SNYDER OIL CORP	409245	SESW 5 5N -63W (6) 40.423216, -104.463152	Sidetrack	TD	Formation	Status AL
05-123-19022, UPV 5-15H3 SNYDER OIL CORP	309709	SWSE 5 5N -63W (6) 40.423216, -104.458352	Sidetrack	TD	Formation	Status AL
05-123-25281, WELLS RANCH-USX BB 5-15 NOBLE ENERGY INC	309709	SWSE 5 5N -63W (6) 40.423280, -104.458410	Sidetrack	TD	Formation	Status
				0 6972	CODL	CM
				0 6972	NB-CD	AB
				0 6972	NBRR	CM
05-123-26242, WELLS RANCH -USX BB 5-16 NOBLE ENERGY INC	310327	SESE 5 5N -63W (6) 40.423544, -104.453927	Sidetrack	TD	Formation	Status
				0 6966	CODL	CM
				0 6966	NB-CD	AB
				0 6966	NBRR	CM
05-123-15068, SLW RANCH 44-7 PDC ENERGY INC	327718	SESE 7 5N -63W (6) 40.407720, -104.472530	Sidetrack	TD	Formation	Status
				0 6904	CODL	CM
				0 6904	NB-CD	PR
				0 6904	NBRR	CM
05-123-19433, SLW RANCH 42-7 PDC ENERGY INC	330663	SENE 7 5N -63W (6) 40.415830, -104.472610	Sidetrack	TD	Formation	Status
				0 6974	CODL	CM
				0 6974	NB-CD	SI
				0 6974	NBRR	CM
05-123-20044, SKURICH 43-7 PDC ENERGY INC	331025	NESE 7 5N -63W (6) 40.411670, -104.472560	Sidetrack	TD	Formation	Status
				0 7002	CODL	CM
				0 7002	NB-CD	SI
				0 7002	NBRR	CM
05-123-20390, SKURICH/SLW RANCH 7A PDC ENERGY INC	331256	NWSE 7 5N -63W (6) 40.409780, -104.475000	Sidetrack	TD	Formation	Status
				0 6950	CODL	CM
				0 6950	NB-CD	PR
				0 6950	NBRR	CM
05-123-15069, STATE 11-8 PDC ENERGY INC	327719	NWNW 8 5N -63W (6) 40.419640, -104.467830	Sidetrack	TD	Formation	Status
				0 6926	CODL	CM
				0 6926	NB-CD	AB
				0 6926	NBRR	CM
05-123-19233, STATE LEASE 5519 22-8 PDC ENERGY INC	330516	SENW 8 5N -63W (6) 40.416310, -104.462780	Sidetrack	TD	Formation	Status
				0 7080	CODL	CM
				0 7080	NB-CD	SI
05-123-19365, STATE 5519 13-8 PDC ENERGY INC	330619	NWSW 8 5N -63W (6) 40.411860, -104.468190	Sidetrack	TD	Formation	Status
				0 6981	CODL	AB
05-123-19434, STATE 5519 33-8 PDC ENERGY INC	330664	NWSE 8 5N -63W (6) 40.411720, -104.458470	Sidetrack	TD	Formation	Status
				0 7066	CODL	CM
				0 7066	NB-CD	PR
05-123-19822, STATE 5519 12-8 PDC ENERGY INC	330884	SWNW 8 5N -63W (6) 40.415560, -104.467920	Sidetrack	TD	Formation	Status
				0 7100	CODL	AB
05-123-19824, STATE 5519 23-8 PDC ENERGY INC	330886	NESW 8 5N -63W (6) 40.411750, -104.463140	Sidetrack	TD	Formation	Status
				0 7000	CODL	CM
				0 7000	NB-CD	SI
				0 7000	NBRR	CM
05-123-19924, STATE 5519 8-43	330951	NESE 8 5N -63W (6)	Sidetrack	TD	Formation	Status

PDC ENERGY INC	40.411420, -104.453470		0	7000	CODL	CM
			0	7000	NB-CD	PR
			0	7000	NBRR	CM
05-123-19925, STATE 5519 8-34	330952 SWSE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.407890, -104.458330		0	7000	CODL	CM
			0	7000	NB-CD	PR
			0	7000	NBRR	CM
05-123-20064, STATE 5519 24-8	331042 SESW 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.407580, -104.463780		0	7078	CODL	AB
05-123-20065, STATE 5519 14-8	331043 SWSW 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.407330, -104.468500		0	7014	CODL	AB
05-123-20136, STATE 5519 21-8	331089 NENW 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.418580, -104.463440		0	7045	CODL	AB
05-123-20333, STATE 5519 44-8	331221 SESE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.407830, -104.454060		0	6978	CODL	AB
05-123-20334, STATE 5519 32-8	331222 SWNE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.415310, -104.458780		0	7010	CODL	SI
05-123-20504, STATE 5519 8D	331329 NW 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.417390, -104.465560		0	7000	CODL	AB
05-123-20550, STATE 5519 8A	331353 SE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.409780, -104.456860		0	7012	CODL	PR
05-123-20675, STATE 5519 31-8	331428 NWNE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.419110, -104.458420		0	6994	CODL	AB
05-123-20676, STATE 5519 41-8	331429 NENE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.419580, -104.454170		0	7751	CODL	AB
			0	7751	JSND	AB
05-123-20677, STATE 5519 42-8	331430 SENE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.415690, -104.453640		0	6880	CODL	AB
05-123-21056, STATE/SLW 8C	409645 NE 8 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.417556, -104.455942					AL
05-123-20147, NAT'L HOG FARM 14-9	331096 SWSW 9 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.406940, -104.450390		0	6970	CODL	SI
05-123-20921, NHF 13-9	331573 NWSW 9 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.412310, -104.448810		0	6975	CODL	CM
			0	6975	NB-CD	PR
			0	6975	NBRR	CM
05-123-20923, NHF 24-9	331575 SESW 9 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.408080, -104.443610		0	6983	CODL	CM
			0	6983	NB-CD	PR
			0	6983	NBRR	CM
05-123-20924, NHF 21-9	331576 NENW 9 5N -63W (6)	Sidetrack		TD	Formation	Status
PDC ENERGY INC	40.419810, -104.443920		0	6962	CODL	CM
			0	6962	NB-CD	SI
			0	6962	NBRR	CM
05-123-28074, 70 RANCH USX BB 09-11	302279 NESW 9 5N -63W (6)	Sidetrack		TD	Formation	Status
NOBLE ENERGY INC	40.412058, -104.444178		0	6916	CODL	CM
			0	6916	NB-CD	SI
			0	6916	NBRR	CM
05-123-28075, 70 RANCH USX BB 09-10	302280 NWSE 9 5N -63W (6)	Sidetrack		TD	Formation	Status
NOBLE ENERGY INC	40.412198, -104.439574		0	6986	CODL	CM
			0	6986	NB-CD	SI

05-123-28083, 70 RANCH USX BB 09-05 NOBLE ENERGY INC	302288 SWNW 9 5N -63W (6) 40.416093, -104.449004	Sidetrack	0 6986 NBRR CM TD Formation Status 0 6936 CODL CM 0 6936 NB-CD SI 0 6936 NBRR CM
05-123-28084, 70 RANCH USX BB 09-15 NOBLE ENERGY INC	302289 SWSE 9 5N -63W (6) 40.407929, -104.440271	Sidetrack	TD Formation Status 0 6896 CODL CM 0 6896 NB-CD SI 0 6896 NBRR CM
05-123-29970, 70 RANCH 11-9 NOBLE ENERGY INC	302881 NWNW 9 5N -63W (6) 40.420030, -104.448290	Sidetrack	TD Formation Status 0 7403 CODL CM 0 7403 NB-CD AB 0 7403 NBRR CM
05-123-29971, 70 RANCH 12-9 NOBLE ENERGY INC	410043 SWNW 9 5N -63W (6) 40.415710, -104.448390	Sidetrack	TD Formation Status AL
05-123-29972, 70 RANCH 22-9 NOBLE ENERGY INC	302882 SENW 9 5N -63W (6) 40.416175, -104.444101	Sidetrack	TD Formation Status 0 7649 CODL CM 0 7649 NB-CD SI 0 7649 NBRR CM
05-123-29974, 70 RANCH 34-9 NOBLE ENERGY INC	410044 SWSE 9 5N -63W (6) 40.407760, -104.440240	Sidetrack	TD Formation Status AL
05-123-30639, 70 RANCH USX BB 09-99HZ NOBLE ENERGY INC	302881 NWNW 9 5N -63W (6) 40.420624, -104.448388	Sidetrack	TD Formation Status 0 10821 NBRR SI
05-123-20613, STATE PETERSON 22-16 PDC ENERGY INC	331395 SENW 16 5N -63W (6) 40.400530, -104.444030	Sidetrack	TD Formation Status 0 7553 CODL CM 0 7553 JSND AB 0 7553 NB-CD PR 0 7553 NBRR CM
05-123-20709, STATE PETERSON 11-16 PDC ENERGY INC	331454 NWNW 16 5N -63W (6) 40.404330, -104.448500	Sidetrack	TD Formation Status 0 6918 CODL PR
05-123-20715, STATE PETERSON 12-16 PDC ENERGY INC	331460 SWNW 16 5N -63W (6) 40.400890, -104.448030	Sidetrack	TD Formation Status 0 6925 CODL PR
05-123-20724, STATE PETERSON 21-16 PDC ENERGY INC	331469 NENW 16 5N -63W (6) 40.404500, -104.444030	Sidetrack	TD Formation Status 0 6900 CODL PR
05-123-21057, STATE PETERSON 16D PDC ENERGY INC	409646 NW 16 5N -63W (6) 40.403506, -104.446361	Sidetrack	TD Formation Status AL
05-123-21676, STATE PETERSON 13-16 PDC ENERGY INC	331986 NWSW 16 5N -63W (6) 40.397140, -104.449000	Sidetrack	TD Formation Status 0 6889 CODL PR
05-123-21677, STATE PETERSON 31-16 PDC ENERGY INC	331987 NWNE 16 5N -63W (6) 40.404190, -104.439780	Sidetrack	TD Formation Status 0 6983 CODL SI
05-123-19023, UPV 17-3H3 SNYDER OIL CORP	409297 NENW 17 5N -63W (6) 40.405056, -104.463042	Sidetrack	TD Formation Status AL
05-123-19024, UPV 17-4H3 SNYDER OIL CORP	330950 NWNW 17 5N -63W (6) 40.404966, -104.467762	Sidetrack	TD Formation Status AL
05-123-19025, UPV 17-5H3 SNYDER OIL CORP	409298 SWNW 17 5N -63W (6) 40.401346, -104.467772	Sidetrack	TD Formation Status AL
05-123-19026, UPV 17-6H3 SNYDER OIL CORP	409299 SENW 17 5N -63W (6) 40.401426, -104.463042	Sidetrack	TD Formation Status AL
05-123-19916, NATIONAL HOG FARMS 17-12 PDC ENERGY INC	330948 SWNW 17 5N -63W (6) 40.400640, -104.467780	Sidetrack	TD Formation Status 0 6934 CODL CM 0 6934 NB-CD SI

05-123-19923, NATIONAL HOG FARM 17-11 PDC ENERGY INC	330950 NWNW 17 5N -63W (6) 40.404080, -104.467780	Sidetrack	0 6934 NBRR CM TD Formation Status 0 6943 CODL CM 0 6943 NB-CD SI 0 6943 NBRR CM
05-123-20015, NATIONAL HOG FARM 17-22 PDC ENERGY INC	331004 SENW 17 5N -63W (6) 40.400610, -104.463220	Sidetrack	TD Formation Status 0 6968 CODL CM 0 6968 NB-CD SI 0 6968 NBRR CM
05-123-20016, NATIONAL HOG FARM 17-21 PDC ENERGY INC	331005 NENW 17 5N -63W (6) 40.404220, -104.462750	Sidetrack	TD Formation Status 0 7429 CODL CM 0 7429 JSND AB 0 7429 NB-CD SI 0 7429 NBRR CM
05-123-20263, NATIONAL HOG FARM 41-17 PDC ENERGY INC	331175 NENE 17 5N -63W (6) 40.404170, -104.454500	Sidetrack	TD Formation Status 0 6931 CODL AB
05-123-20267, NATIONAL HOG FARM 42-17 PDC ENERGY INC	331177 SENE 17 5N -63W (6) 40.400750, -104.453560	Sidetrack	TD Formation Status 0 6909 CODL SI
05-123-20268, NATIONAL HOG FARM 32-17 PDC ENERGY INC	331178 SWNE 17 5N -63W (6) 40.400810, -104.458810	Sidetrack	TD Formation Status 0 6825 CODL SI
05-123-20269, NATIONAL HOG FARM 31-17 PDC ENERGY INC	331179 NWNE 17 5N -63W (6) 40.404080, -104.458640	Sidetrack	TD Formation Status 0 6972 CODL SI
05-123-26144, 70 RANCH USX BB 17-19 NOBLE ENERGY INC	310256 SENW 17 5N -63W (6) 40.402310, -104.465430	Sidetrack	TD Formation Status AL
05-123-26145, 70 RANCH USX BB 17-17 NOBLE ENERGY INC	310257 NWNE 17 5N -63W (6) 40.402630, -104.456440	Sidetrack	TD Formation Status AL
05-123-41529, 70 Ranch State BB18-681 NOBLE ENERGY INC	441834 NENE 17 5N -63W (6) 40.405140, -104.453610	Sidetrack	TD Formation Status 0 16023 CARL CM 0 16023 CODL CM 0 16023 FTHYS CM 0 16023 N-COM PR 0 16023 NBRR CM 0 16023 NFCC PR
05-123-41530, 70 Ranch State BB18-689 NOBLE ENERGY INC	441834 NENE 17 5N -63W (6) 40.405240, -104.453610	Sidetrack	TD Formation Status 0 15845 N-COM PR 0 15845 NBRR PR
05-123-41531, 70 Ranch State BB18-662 NOBLE ENERGY INC	441837 SENE 17 5N -63W (6) 40.401750, -104.453400	Sidetrack	TD Formation Status 0 16027 CODL CM 0 16027 FTHYS CM 0 16027 N-COM PR 0 16027 NBFHC PR 0 16027 NBRR CM
05-123-41532, 70 Ranch State BB18-675 NOBLE ENERGY INC	441837 SENE 17 5N -63W (6) 40.401860, -104.453410	Sidetrack	TD Formation Status 0 15870 N-COM PR 0 15870 NBRR PR
05-123-41533, 70 Ranch State BB18-634 NOBLE ENERGY INC	441841 NESE 17 5N -63W (6) 40.398240, -104.452910	Sidetrack	TD Formation Status 0 16757 N-COM PR 0 16757 NBRR PR
05-123-41534, 70 Ranch State BB18-655 NOBLE ENERGY INC	441841 NESE 17 5N -63W (6) 40.398440, -104.452910	Sidetrack	TD Formation Status 0 16252 N-COM PR 0 16252 NBRR PR

05-123-41535, 70 Ranch State BB18-647 NOBLE ENERGY INC	441841 NESE 17 5N -63W (6) 40.398340, -104.452910	Sidetrack	TD	Formation	Status
			0 16057	N-COM	PR
			0 16057	NBRR	PR
05-123-05187, STATE-S L W RANCH 1 UNKNOWN	404900 NENE 18 5N -63W (6) 40.404120, -104.472560	Sidetrack	TD	Formation	Status
			0 7218	UNK	AB
05-123-19277, DKW GREEN STATE BB 18-01 NOBLE ENERGY INC	330554 NENE 18 5N -63W (6) 40.403780, -104.473080	Sidetrack	TD	Formation	Status
			0 6848	NB-CD	AB