

Report Date: 1/2/2019

Bedrock Aquifer Evaluation Determination Tool

Denver Basin Aquifer - Specific Location Determination Tool

Applicant: PDC

Receipt No:

Evaluated By:

Location: NW 1/4 of NW 1/4 of Sec. 32, T.7N, R.66W. (550 NSL, 670 WSL)

Basin Designation:

Ground Surface Elevation: 4880 Feet Number of Acres: 160

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

Plug and Abandon Surface Casing Check

Operator	PDC						
API or Doc #	Rotharmel 11-32 (API 123-27373)						
SB5 Base of Fox Hills	NA	L-FH	This well GR	WW GR	Elev Diff		
Deepest Water Well Within One Mile / number of wells	850	/	39	4880	4872	8	
Deepest Water Well Within Two Miles / number of wells		/					
Sussex / Shannon Production within one mile	N	/					
Operator Existing Surface Casing Depth	932						
Production Casing to be pulled	0						
Required aquifer protection depth in this well	850	8	50	908			

Water Wells Selected From Map
Filter Results by Depth

850

770

810

39

WELL DESCRIPTION	LOCATION	WELL INFORMATION			
		Depth	Top Perf	Bottom Perf	Aquifer
Receipt=0507596A, Permit=251499--- TREGONING, NANCY J	NENE 6 6.0 N -66.0 W	325	0	0	ALL UNNAMED AQUIFERS
Receipt=C620323, Permit=323-WCB-- SCHMIDT, ALEX	29 7.0 N -66.0 W	17	0	0	ALL UNNAMED AQUIFERS
Receipt=9061819, Permit=13965-R-- MCCOLLEY LOREN D & RENITA E	NENE 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=9061818, Permit=13964-R-- MCCOLLEY LOREN D & RENITA E	NWNE 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=9062283, Permit=15873-R-- THORNTON CITY OF	SWNW 29 7.0 N -66.0 W	18	0	0	ALL UNNAMED AQUIFERS
Receipt=9065429, Permit=76786--- SEXTON BOB & GLADYS S	SWNW 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=0073428, Permit=76786--A-- COOPER, ROBERT E	SWNW 29 7.0 N -66.0 W	60	30	50	ALL UNNAMED AQUIFERS
Receipt=9060296, Permit=10220--- RUFF, ADAM	SWSE 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=3614132K, Permit=43-GX-- DAWKINS, KENTON	SWSE 29 7.0 N -66.0 W	195	0	0	ALL UNNAMED AQUIFERS
Receipt=3618364, Permit=10220--A-- DAWKINS, KENTON	SWSE 29 7.0 N -66.0 W	60	20	40	QUATERNARY ALLUVIUM
Receipt=9061820, Permit=13966-R-- ROTHARMEL, DONALD L	NESW 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=9061521, Permit=13244--- SCHMIDT, CHRIST	SESW 29 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=0076500, Permit=6697-AD-- DORSEY, ALVIN	SENE 30 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=0276500, Permit=24792-F-- DORSEY, ALVIN	SENE 30 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=3688091, Permit=311278--- MUGGLI, DARRIN	SENE 30 7.0 N -66.0 W	80	0	0	ALL UNNAMED AQUIFERS
Receipt=3688091, Permit=311278--- MUGGLI, KARYN	SENE 30 7.0 N -66.0 W	80	0	0	ALL UNNAMED AQUIFERS
Receipt=9058927, Permit=2592-F-- SKOGLUND FARMS LLC	SENE 30 7.0 N -66.0 W	40	20	40	ALL UNNAMED AQUIFERS
Receipt=0287679, Permit=151317--- G&P ENTERPRISES	SWNE 30 7.0 N -66.0 W	45	35	45	ALL UNNAMED AQUIFERS
Receipt=3624573A, Permit=276317--- THORNTON CITY OF	NESE 30 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=3624573B, Permit=276317--A-- JHAT LLC	NESE 30 7.0 N -66.0 W	50	40	50	ALL UNNAMED AQUIFERS
Receipt=9059170, Permit=4311-F-- THORNTON CITY OF	NWSE 30 7.0 N -66.0 W	41	28	41	ALL UNNAMED AQUIFERS
Receipt=9060587, Permit=11152-R-- HOLLAR NELSON R & STACIE REE M	SESW 30 7.0 N -66.0 W	26	0	0	ALL UNNAMED AQUIFERS
Receipt=9062566, Permit=18915--- BROWN ASA C & GUY L	SENE 31 7.0 N -66.0 W	0	0	0	ALL UNNAMED AQUIFERS
Receipt=9065581, Permit=80436--- 	SENW 31	0	0	0	ALL UNNAMED AQUIFERS

HESTER FARMS C/O KESTER SR K J	7.0 N -66.0 W			
Receipt=C620424, Permit=424-WCB--	SENW 31	75	0	0 ALL UNNAMED AQUIFERS
HESTER DR K J	7.0 N -66.0 W			
Receipt=C620383, Permit=383-WCB--	NWSE 31	75	0	0 ALL UNNAMED AQUIFERS
HESTER DR H J	7.0 N -66.0 W			
Receipt=0348797, Permit=13118-AD--	NENE 32	0	0	0 ALL UNNAMED AQUIFERS
CRAWFORD, KENT	7.0 N -66.0 W			
Receipt=9062344, Permit=16150-R--	NENE 32	0	0	0 ALL UNNAMED AQUIFERS
MOODY J GALE & VALERIE A	7.0 N -66.0 W			
Receipt=0363154, Permit=16150-R-R--	NWNE 32	0	0	0 ALL UNNAMED AQUIFERS
CRAWFORD KENT & JACQUELINE	7.0 N -66.0 W			
Receipt=0022006, Permit=--	NWNE 32	0	0	0 ALL UNNAMED AQUIFERS
CRAWFORD, KENT	7.0 N -66.0 W			
Receipt=0383103, Permit=--	SENE 32	0	0	0 ALL UNNAMED AQUIFERS
BERG, SHARON	7.0 N -66.0 W			
Receipt=0416348, Permit=203323---	NWNW 32	60	40	60 ALL UNNAMED AQUIFERS
ROTHARMEL, DONALD L	7.0 N -66.0 W			
Receipt=9064873, Permit=58269---	NWNW 32	57	0	0 ALL UNNAMED AQUIFERS
ROTHARMEL, DONALD L	7.0 N -66.0 W			
Receipt=0453144, Permit=222812---	SWNW 32	270	210	250 ALL UNNAMED AQUIFERS
BROWN JEFFERY & MELISSA	7.0 N -66.0 W			
Receipt=0473606, Permit=232626---	SWSE 32	850	770	810 ALL UNNAMED AQUIFERS
NELSON, RODNEY L	7.0 N -66.0 W			
Receipt=9061463, Permit=13083-R--	NESW 32	0	0	0 ALL UNNAMED AQUIFERS
NELSON, RODNEY L	7.0 N -66.0 W			
Receipt=0522241A, Permit=256399---	NWSW 32	740	660	740 ALL UNNAMED AQUIFERS
WEABER DAVIS L & NATALIE S	7.0 N -66.0 W			
Receipt=0522241B, Permit=256400---	NWSW 32	700	640	680 ALL UNNAMED AQUIFERS
HAYS MICHAEL D & MICHELLE M	7.0 N -66.0 W			
Receipt=0495406, Permit=243771---	NWSW 32	740	660	740 ALL UNNAMED AQUIFERS
MOODY, J G	7.0 N -66.0 W			

Oil and Gas Wells Selected

Filter Results by Formation

WELL DESCRIPTION	LOCATION ID	LOCATION	WELL INFORMATION	Formation	Top	Bottom	TD	Status
05-123-35998, CECIL FARMS PC I06-68-1HN NOBLE ENERGY INC	430005	NENE 6 6N -66W (6) 40.522935, -104.813998	Sidetrack	0 NBRR	7759	11831	11923	PR
05-123-38118, CECIL FARMS PC I06-67HN NOBLE ENERGY INC	430005	NENE 6 6N -66W (6) 40.522838, -104.813983	Sidetrack	0 NBRR	7774	11621	11718	PR
05-123-26060, HOLLAR 30-34 BAYSWATER EXPLORATION & PRODUCTION LLC	333046	SESW 30 7N -66W (6) 40.540380, -104.825470	Sidetrack	0 NB-CD	7393	7408	7573	PR
				0 NBRR	7202	7213	7573	CM
				0 CODL	7393	7408	7573	CM
05-123-26062, HOLLAR 30-43 BAYSWATER EXPLORATION & PRODUCTION LLC	310195	SWSE 30 7N -66W (6) 40.539550, -104.819820	Sidetrack	0 NB-CD	7096	7418	7570	PR
				0 NBRR	7096	7238	7570	CM
				0 CODL	7402	7418	7570	CM
05-123-29251, HOLLAR 30-35 (DIR) NOBLE ENERGY INC	333046	SESW 30 7N -66W (6) 40.540350, -104.825630	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-29506, RICKFORD 30-44 NOBLE ENERGY INC	302632	SESE 30 7N -66W (6) 40.540460, -104.815700	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-30431, STEWART 30-14 NOBLE ENERGY INC	414040	SENE 30 7N -66W (6) 40.547460, -104.815520	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-30433, STEWART 30-15 NOBLE ENERGY INC	414041	NWNE 30 7N -66W (6) 40.549140, -104.817250	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-30434, STEWART 30-11 NOBLE ENERGY INC	413448	NENE 30 7N -66W (6) 40.550550, -104.815230	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-23596, DEINES 31-14 BAYSWATER EXPLORATION & PRODUCTION LLC	305865	SENE 31 7N -66W (6) 40.532520, -104.815220	Sidetrack	0 NB-CD	7172	7374	7550	PR
				0 NBRR	7172	7207	7550	CM
				0 CODL	7355	7374	7550	CM
05-123-23808, HESTER 31-21 BAYSWATER EXPLORATION & PRODUCTION LLC	305997	NENW 31 7N -66W (6) 40.536290, -104.824010	Sidetrack	0 NB-CD	7178	7399	7608	SI
				0 NBRR	7178	7213	7608	CM
				0 CODL	7379	7399	7608	CM
05-123-24075, HESTER 31-22 BAYSWATER EXPLORATION & PRODUCTION LLC	306151	NWNW 31 7N -66W (6) 40.536360, -104.828610	Sidetrack	0 CODL	7404	7416	7593	PR
05-123-25269, HESTER 31-24 BAYSWATER EXPLORATION & PRODUCTION LLC	309702	SENW 31 7N -66W (6) 40.532630, -104.825180	Sidetrack	0 CODL	7385	7400	7611	SI
05-123-25734, DEINES 31-11 BAYSWATER EXPLORATION & PRODUCTION LLC	310004	NENE 31 7N -66W (6) 40.536360, -104.814460	Sidetrack	0 NB-CD	7136	7384	7534	SI
				0 NBRR	7136	7266	7534	CM
				0 CODL	7366	7384	7534	CM
05-123-25735, DEINES 31-12 NOBLE ENERGY INC	310005	NWNE 31 7N -66W (6) 40.536500, -104.819980	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-26061, HESTER 31-25 BAYSWATER EXPLORATION & PRODUCTION LLC	310194	NWNW 31 7N -66W (6) 40.534410, -104.827860	Sidetrack	0 CODL	7384	7402	7550	SI
05-123-33882, Deines PC I131-17D NOBLE ENERGY INC	424107	NWNE 31 7N -66W (6) 40.534770, -104.819560	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-33884, Deines PC I131-07D NOBLE ENERGY INC	424107	NWNE 31 7N -66W (6) 40.534710, -104.819550	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-34743, Bosworth-Bailey 16-31 PDC ENERGY INC	426637	SESE 31 7N -66W (6) 40.525617, -104.813804	Sidetrack	0 CODL	7378	7394	7607	PR
05-123-34744, Bosworth-Bailey 9-31 PDC ENERGY INC	426637	SESE 31 7N -66W (6) 40.525613, -104.813695	Sidetrack	0 NB-CD	7294	7624	7803	PR
				0 NBRR	7294	7524	7803	CM
				0 CODL	7606	7624	7803	CM
05-123-34745, Bosworth-Bailey 20-31 PDC ENERGY INC	426637	SESE 31 7N -66W (6) 40.525618, -104.813752	Sidetrack	0 CODL	7568	7583	7752	PR
05-123-43053, Schneider S-31-36HN PDC ENERGY INC	445448	NESE 31 7N -66W (6) 40.527270, -104.814100	Sidetrack	Formation	Top	Bottom	TD	Status XX
05-123-43054, Schneider P-31-36HN	445448	NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status

PDC ENERGY INC	40.527393, -104.814098						XX
05-123-43055, Schneider O-31-36HN	445448 NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527435, -104.814098						XX
05-123-43056, Schneider T-31-36HC	445448 SESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527229, -104.814101						XX
05-123-43057, Schneider N-31-36HC	445448 NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527476, -104.814097						XX
05-123-43058, Schneider X-31-36HN	445448 SESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527064, -104.814104						XX
05-123-43059, Schneider V-31-36HN	445448 SESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527146, -104.814103						XX
05-123-43060, Schneider U-31-36HN	445448 SESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527188, -104.814102						XX
05-123-43061, Schneider Q-31-36HC	445448 NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527352, -104.814099						XX
05-123-43062, Schneider W-31-36HC	445448 SESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527105, -104.814103						XX
05-123-43063, Schneider M-31-36HN	445448 NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527517, -104.814096						XX
05-123-43064, Schneider R-31-36HN	445448 NESE 31 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.527311, -104.814100						XX
05-123-11170, ROTHARMEL-SCHMIDT 1	407580 NWNW 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
TAMCO DRILLING INC	40.536502, -104.810314		0 UNK				0 AL
05-123-11223, GALLOWAY 1	319417 NESE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PETERSON ENERGY OPERATING INC	40.529304, -104.796376		0 NB-CD				8285 AB
			0 NBRR	7078			8285 CM
			0 CODL	7494	8546		8285 CM
05-123-27370, ROTHARMEL 21-32	302216 NENW 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.536720, -104.805690		0 CODL	7375	7385	7570	SI
05-123-27371, ROTHARMEL 12-32	302217 SWNW 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.532250, -104.810420		0 CODL	7339	7349	7542	SI
05-123-27372, ROTHARMEL 22-32	302218 SENW 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.532360, -104.806220		0 CODL	7359	7369	7571	SI
05-123-27373, ROTHARMEL 11-32	302219 NWNW 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.536720, -104.810330		0 CODL	7375	7385	7582	SI
05-123-28112, Moody 31-32D	302307 SWNE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.533810, -104.799780		0 NB-CD	7198	7513	7673	PR
			0 NBRR	7198	7334	7673	CM
			0 CODL	7505	7513	7673	CM
05-123-28113, Moody 32-32D	302307 SWNE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.533690, -104.799690		0 NB-CD	7118	7420	7570	PR
			0 NBRR	7118	7348	7570	CM
			0 CODL	7412	7420	7570	CM
05-123-28114, Moody 32CD	302307 SWNE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.533660, -104.799610						AL
05-123-28115, Moody 42-32D	302307 SWNE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.533670, -104.799670		0 NB-CD	7213	7528	7679	PR
			0 NBRR	7213	7349	7679	CM
			0 CODL	7520	7528	7679	CM
05-123-28116, Moody 41-32D	302307 SWNE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.533750, -104.799750		0 NB-CD	7275	7589	7742	TA
			0 NBRR	7275	7408	7742	CM
			0 CODL	7581	7589	7742	CM
05-123-33104, Nelson 34-32D	421913 SESE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.526860, -104.797890		0 NB-CD	7150	7466	7642	SI
			0 NBRR	7150	7288	7642	CM
			0 CODL	7458	7466	7642	CM
05-123-33106, Nelson 44-32D	421913 SESE 32 7N -66W (6)	Sidetrack	Formation	Top	Bottom	TD	Status
PDC ENERGY INC	40.526810, -104.797860		0 NB-CD	7084	7398	7547	SI
			0 NBRR	7084	7217	7547	CM
			0 CODL	7390	7398	7547	CM

05-123-33109, Nelson 33-32D PDC ENERGY INC	421913 SESE 32 7N -66W (6) 40.527000, -104.797860	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7154	7472	7642	SI
			0 NBRR	7154	7291	7642	CM
			0 CODL	7464	7472	7642	CM
05-123-33112, Nelson 43-32D PDC ENERGY INC	421913 SESE 32 7N -66W (6) 40.526940, -104.797890	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7128	7428	7578	SI
			0 NBRR	7128	7256	7578	CM
			0 CODL	7420	7428	7578	CM
05-123-33118, Nelson 32BD PDC ENERGY INC	421986 NWSW 32 7N -66W (6) 40.528360, -104.809640	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7101	7385	7538	SI
			0 NBRR	7101	7244	7538	CM
			0 CODL	7377	7385	7538	CM
05-123-33121, Nelson 14-32D PDC ENERGY INC	421986 NWSW 32 7N -66W (6) 40.528470, -104.809580	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7201	7490	7649	SI
			0 NBRR	7201	7345	7649	CM
			0 CODL	7482	7490	7649	CM
05-123-33127, Nelson 24-32D PDC ENERGY INC	421986 NWSW 32 7N -66W (6) 40.528440, -104.809610	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7250	7560	7720	SI
			0 NBRR	7250	7380	7720	CM
			0 CODL	7552	7560	7720	CM
05-123-33130, Nelson 13-32D PDC ENERGY INC	421986 NWSW 32 7N -66W (6) 40.528610, -104.809610	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7058	7373	7545	SI
			0 NBRR	7058	7195	7545	CM
			0 CODL	7365	7373	7545	CM
05-123-33131, Nelson 23-32D PDC ENERGY INC	421986 NWSW 32 7N -66W (6) 40.528560, -104.809610	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7169	7490	7648	SI
			0 NBRR	7169	7305	7648	CM
			0 CODL	7482	7490	7648	CM
05-123-33151, Nelson 32D PDC ENERGY INC	421913 SESE 32 7N -66W (6) 40.527060, -104.797890	Sidetrack	Formation	Top	Bottom	TD	Status
			0 NB-CD	7031	7352	7517	SI
			0 NBRR	7031	7168	7517	CM
			0 CODL	7344	7352	7517	CM
05-123-34173, Moody 41-32H PDC ENERGY INC	424763 NENE 32 7N -66W (6) 40.534800, -104.794340	Sidetrack	Formation	Top	Bottom	TD	Status AL
05-123-34546, Rotharmel 11-32H PDC ENERGY INC	425925 NWNW 32 7N -66W (6) 40.534830, -104.812030	Sidetrack	Formation	Top	Bottom	TD	Status
05-123-26470, ROTHARMEL 11-33 PDC ENERGY INC	310489 NWNW 33 7N -66W (6) 40.537110, -104.791640	Sidetrack	0 NBRR	7477	11693	11693	SI
			Formation	Top	Bottom	TD	Status
			0 NB-CD	7106	7376	7632	TA
			0 NBRR	7106	7236	7632	CM
			0 CODL	7366	7376	7632	CM