Executive Summary

Carpenter & Sons, Inc. South Raven Creek Prospect Campbell County, Wyoming

Objective: Depth:	Minnelusa 'B' Lower Sandst 8,800'	one
Reserve Potential:	5.2 MMBO (OOIP) 1.6 MMBO (EUR)	
Potential Wells:	4	
Тгар:	Combination structural/stra	itigraphic
Anticipated Spud:	July 15, 2016	
Acreage:	100% State surface and mir	ierals
AMI:	760.00 Acres	
	ST-WY-12-00069	Sellers trying to lease an additional
	T48N-R69W	120.00 net acres
	Section 36: All	
	Containing 640.00 acres m/	I
Terms:	\$125.00/acre	
	80% NRI	
	12.5% Carried working inter	rest to casing point on test well
Estimated Costs:	\$95,000.00 Acreage	
	\$650,000.00 Estimated Dry	Hole Cost (Promoted)
	\$745,000.00 Estimated Dry	Hole Cost (Promoted) and Acreage
	\$500,000.00 Estimated Con	pletion Cost
	\$1,245,000.0090 Estimated	Total Well Cost With Acreage and Promote

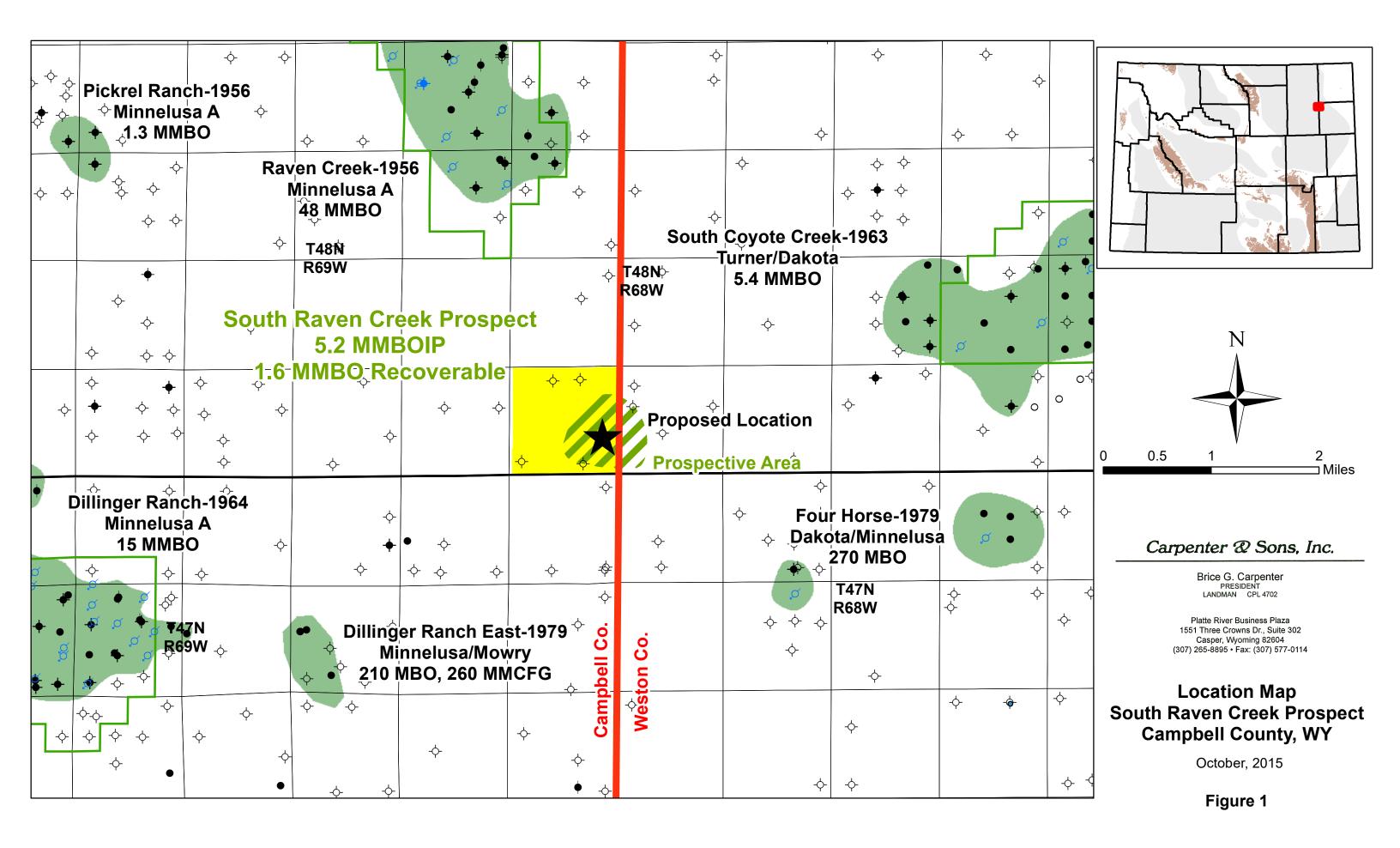
South Raven Creek Prospect

South Raven Creek Prospect is a proposed Minnelusa 'B' Lower Sandstone test located on the border between Campbell and Weston Counties in the eastern portion of the Powder River Basin, Wyoming (Figures 1,2). The Minnelusa 'B' Lower is a well-developed eolian sandstone deposited during Permian time. The prospect is located on a local structural closure created by the development of a 'B' Lower dune (Figure 4). The main target sandstone is approximately 75 feet thick (Figure 5) with approximately 50 feet of porosity greater than 10% (Figures 5,6).

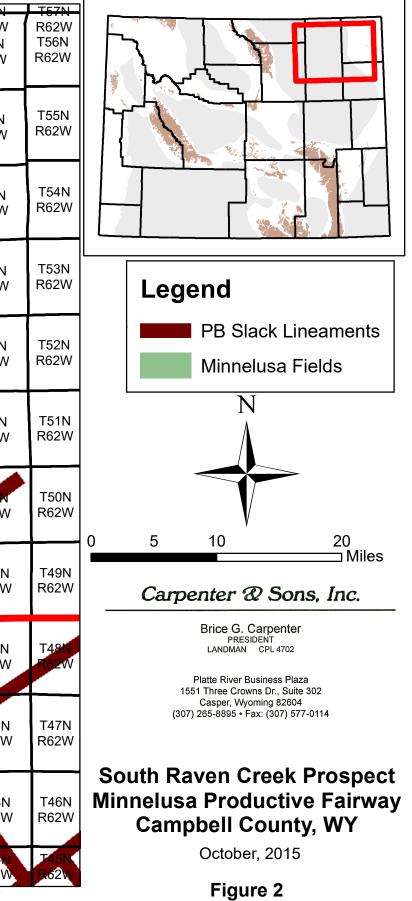
Cross section A-A' (Figure 7) shows thin and tight Minnelusa 'B' Sandstone illustrating confinement to the north of the prospective acreage. Cross Section B-B' (Figure 8) illustrates thick 'B' Lower sandstone (67 feet of sandstone with > 10% porosity) pinching out to the east in an updip direction. Cross section C-C' (Figure 9) illustrates well developed porous sandstone pinching out to the north of the prospective acreage. These cross sections illustrate thick porosity ranging from 10% to 18%.

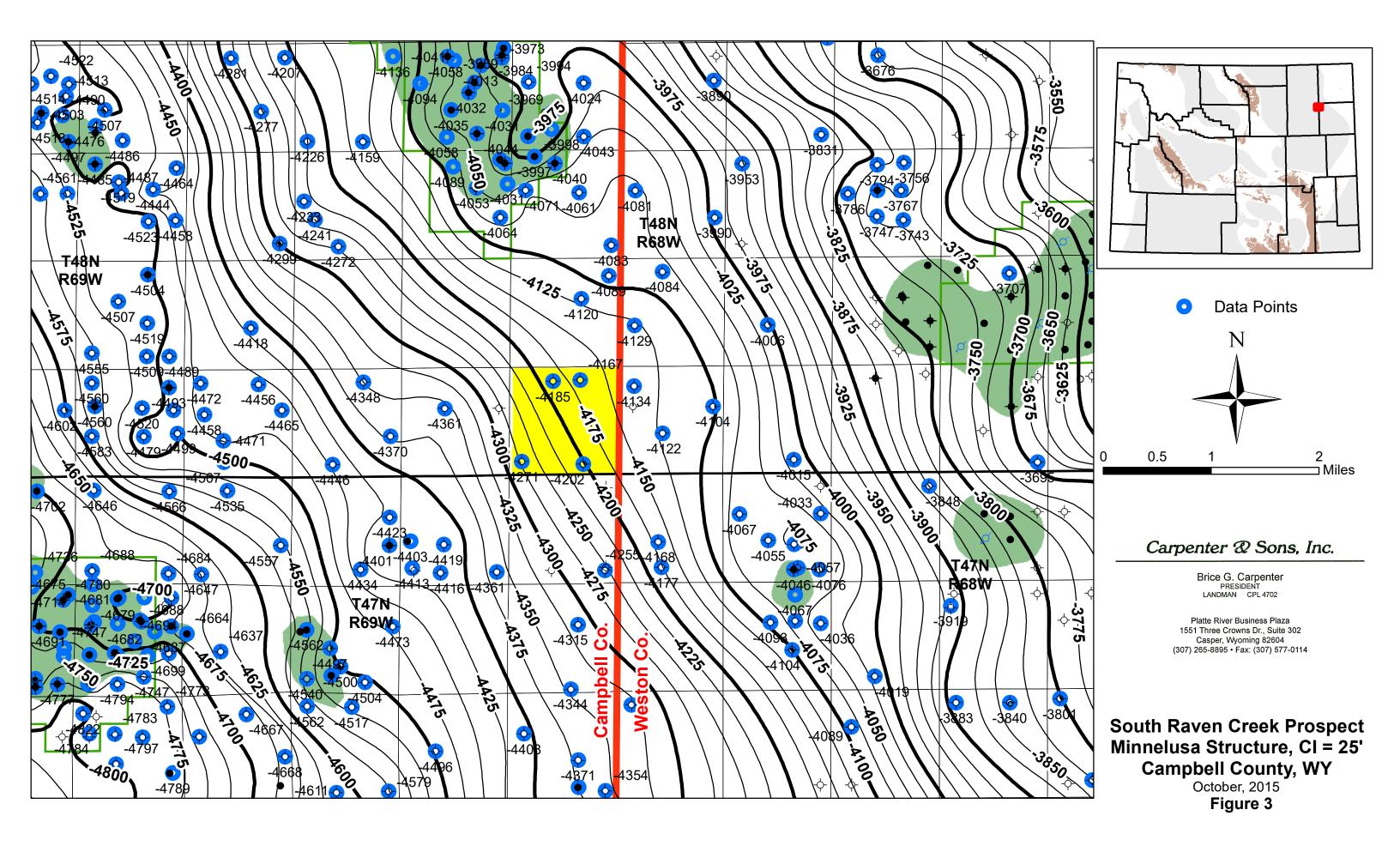
The nearest Minnelusa production is located two (2) miles to the northwest in Raven Creek Field. Raven Creek was discovered in 1956 and has produced 48 million barrels of oil from the Minnelusa 'A' Sandstone. The reservoir thickness and quality are similar between Raven Creek and South Raven Creek. Although South Raven Creek appears to have limited 'A' Sandstone potential, the 'A' will be evaluated in order to test 'B' Lower potential.

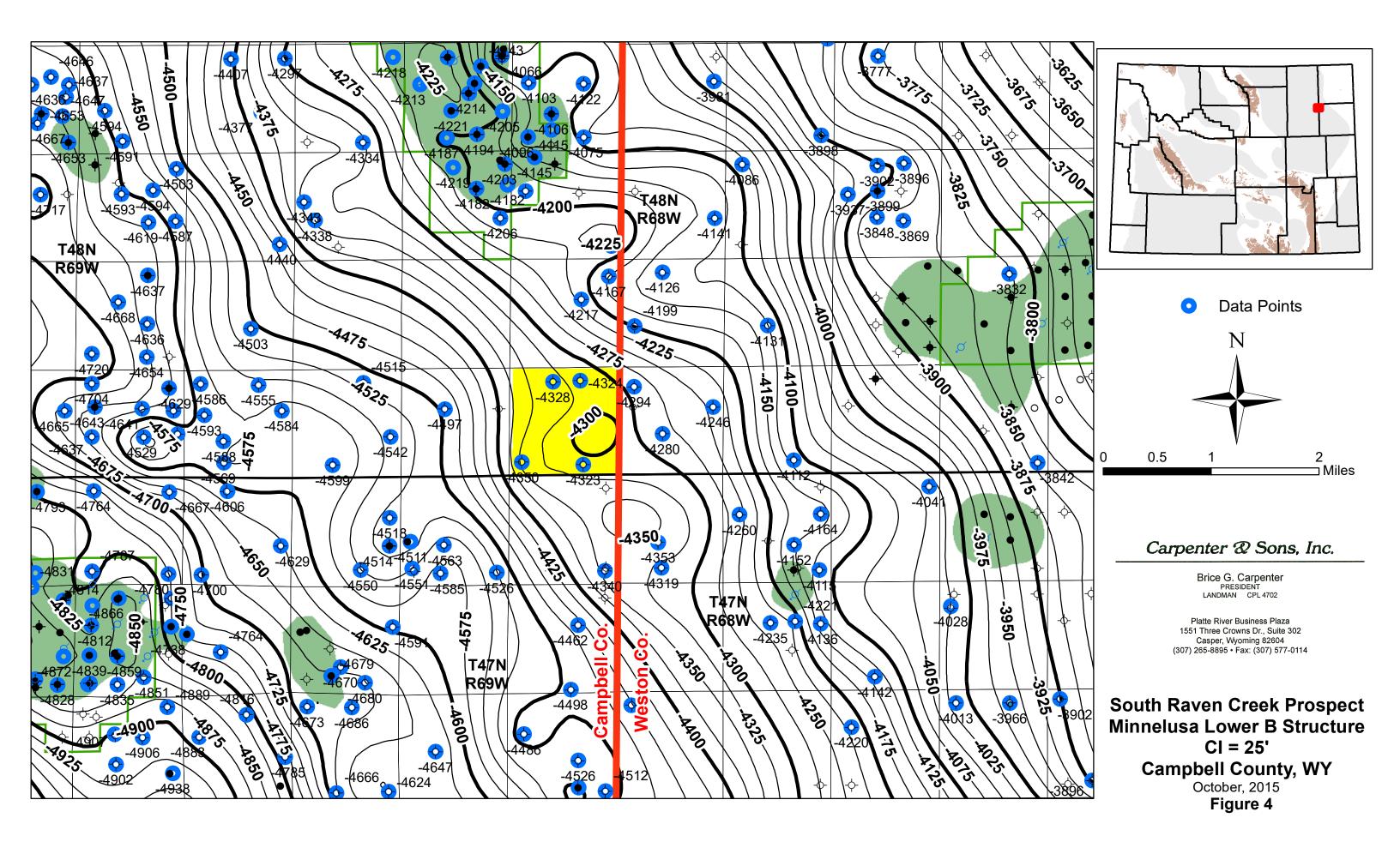
South Raven Creek prospect has approximately 5.2 million barrels of oil in place and can be developed with 4 wells. Assuming a 30% recovery factor, the prospect will produce approximately 1.6 million barrels of oil. The proposed initial test is located in NESE Section 36, Township 48 North, Range 69 West. Carpenter & Sons, Inc. proposes to drill an 8,800 foot test including a drill stem test of the Minnelusa 'B' Lower Sandstone if warranted.



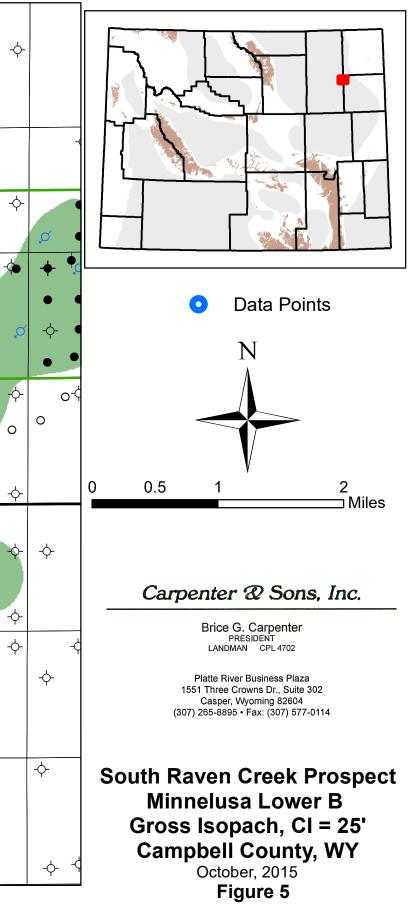
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R78W T56N R78W	R77W T56N R77W	R76 T56 R76	6N	R75W T56N R75W	T56N R74W	R73W T56N R73W	R72W T56N R72W	R71W T56N R71W	R70W T56N R70W	R69W T56N R69W	768W T56N R68W	R67W T56N R67W	R66W 756N R66W	R65W T56N R65W	R64W T56N R64W	R63W T56N R63W
T55N R78W Sľ	T55N R77W Neridan	T55 R76		T55N R75W	T55N R74W	T55N R73W	T55N R72W	T55N R71W	T55N R70W	T55N R69W	75 R67 T55N R68W	aw T53N R67W	T55N R66W	T55N R65W	T55N R64W	Te5N R63W
T54N R78W	T54N R77W	T54 R76		T54N R75W	T54N R74W	T54N R73W	T54N R72W	T54N R71W	T54N R70W	T54N R69W	T54N R68W	T54N R67W	T54N R66W	T54N R65W	T54N R64W	T54N R63W
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T52N R78W	T52N R77W		52N 6W	T52N R75W	T52N R74W	T52N R73W	T52N R72W	T52N R71W	T52N R70W	T52N R69W	T52N R68W	T52N R67W	T52N R66W	T52N R65W	T52N R64W	T52N R63W
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T50N R78W	T50N R77W	T50 R76	0N 6W	T50N R75W	T50N R74W	T50N R73W	T50N R72W	T50N R71W	T50N R70W	T50N R69W	T50N R68W	T50N R67W	T50N R66W	T50N R65W	T50N R64W	T50N R63W
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T48N R78W	T48N R77W		8N 6W	T48N R75W	T48N R74W	T48N R73W	T48N R72W	T48N R71W	T48N R70W	T48N R69W	T48N R68W	T48N R67W T47N R67W	T48N R68W 147N R66W	T48N R65W	T48N R64W	T48N R63W
T47N R78W	T47N R77W	T4 R76	7N 6W	T47N R75W	T47N R74W	T47N R73W	T47N R72W	T47N R71W	T47N R70W	T47N T R69W R	47N SOL	th Ray		reek TA R65	7) T47N 5w R64W	T47N R63W
T46N R78W	T46N R77W		6N 6W	T46N R75W	T46N R74W	T46N R73W	T46N R72W	T46N 771W	T46N R70W	T46N R69W	T46N R68W	T46N R67W	T46N R66W	Veston T46N R65W	T46N R64W	T46N R63W
T45N R78W	T45N R77W		5N 6W	T45N R75W	T45N R74W	T45N R73W	T45N ^{\$} R72W	T45N R71W	T45N R70W	T45N R69W	T45N R68W	T45N R67W	T45N R66W	T45N R65W	T45N R64W	T45N R63W

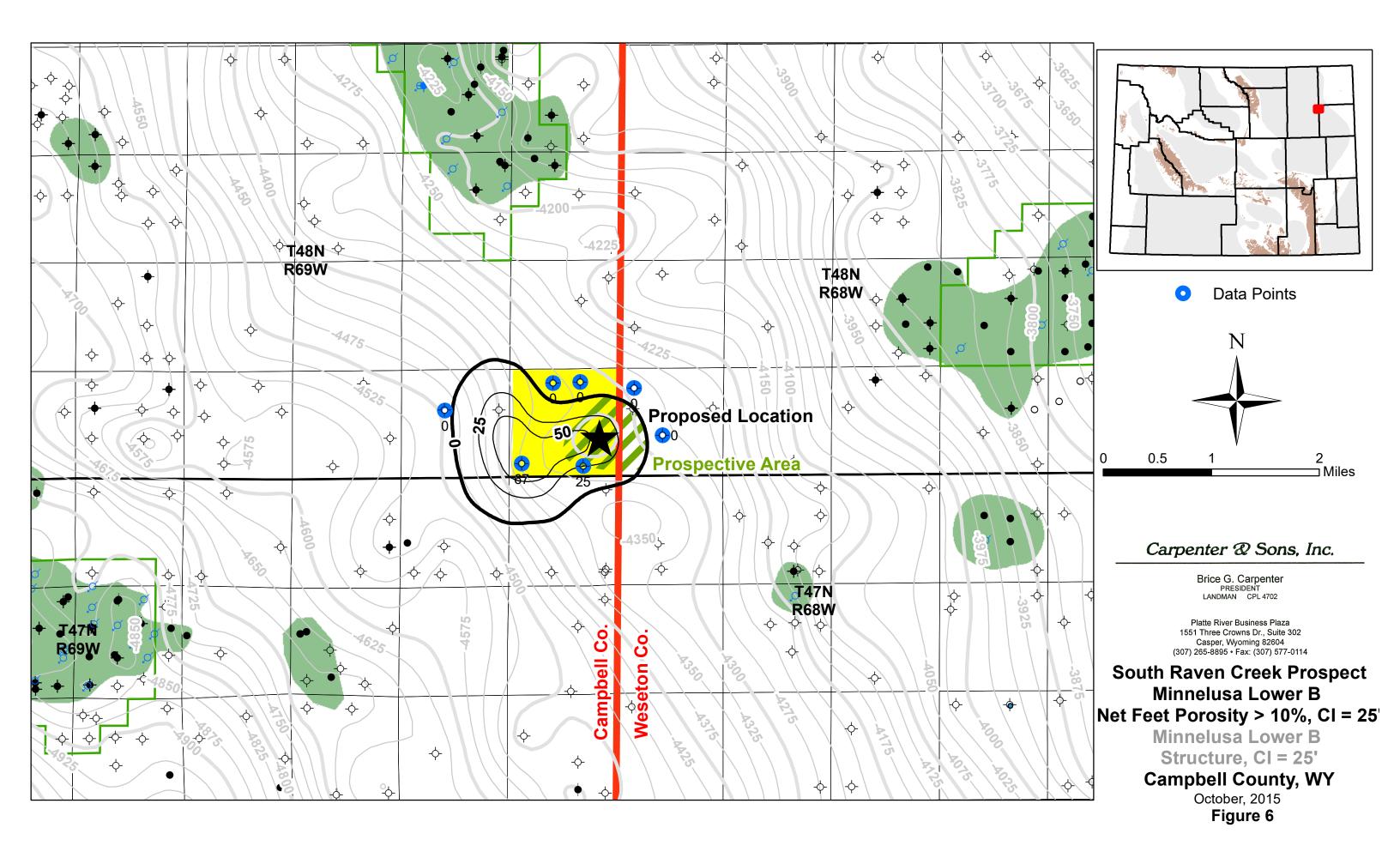






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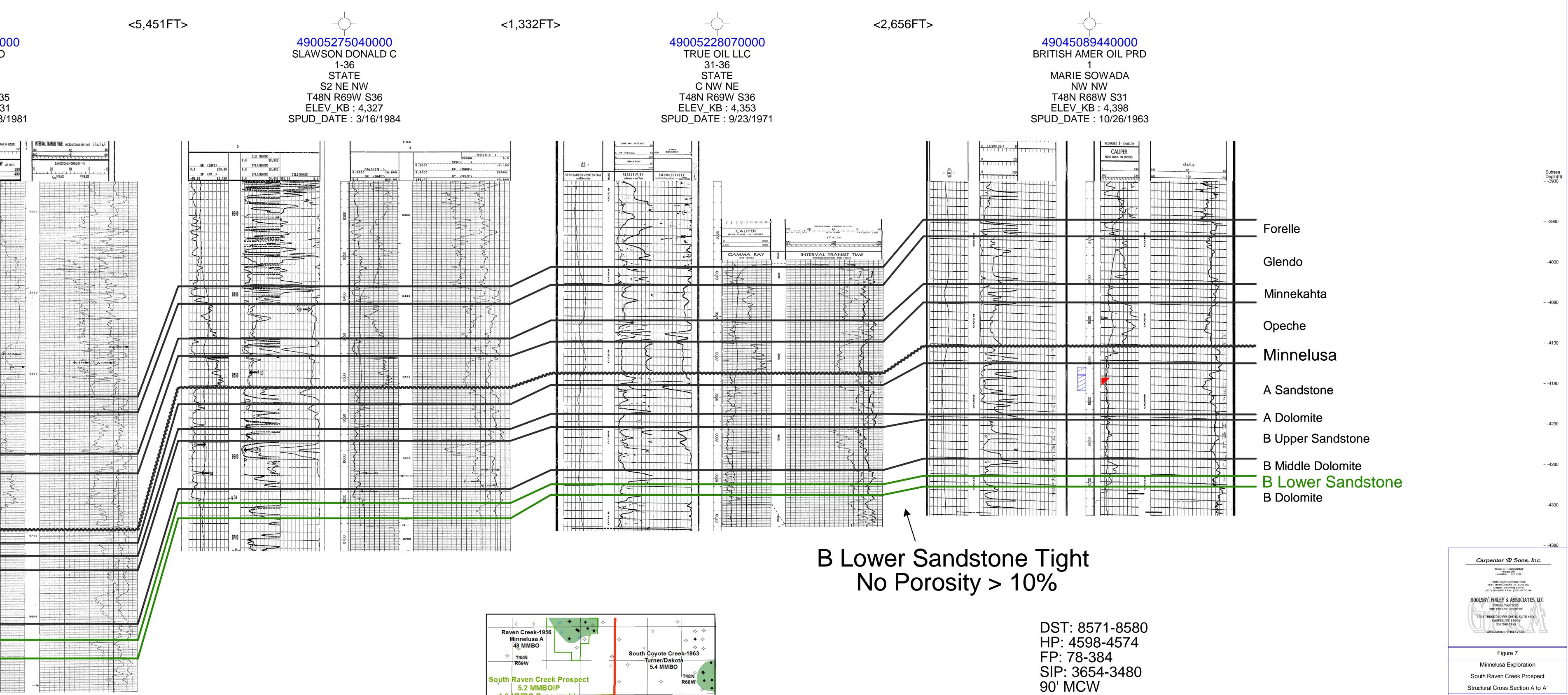
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Subsea epth(ft) -3930 -			
-4030 -			
-4080 –			
-4130 -			
	Forelle		
-4230 -	Glendo		
-4280 -	Minnekahta		
-4330 -	Opeche		
-4380 -	Minnelusa A Sandstone A Dolomite		
-4430 –	B Upper Sandstone		
-4480 - -4530 -	B Middle Dolomite B Lower Sandstone B Dolomite		
-4580 -		∎aparı ersenti ele ile il enan mentale estadori ele konst eri ile ile i	
-4630 -			
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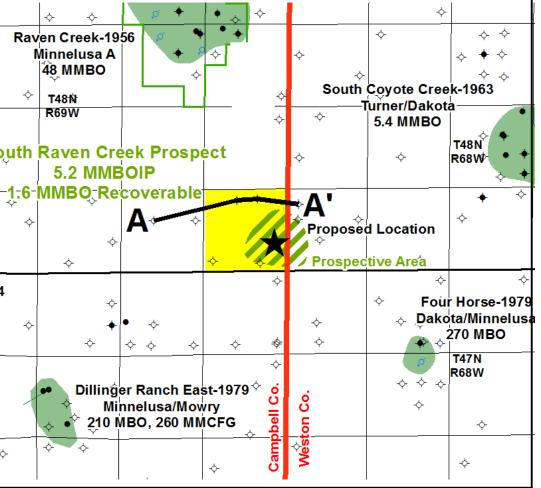
-4730 -

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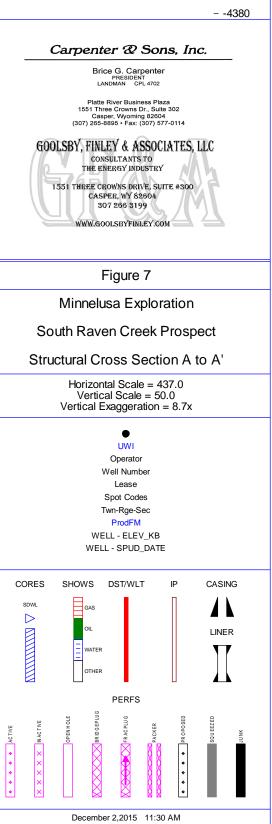
PETRA 12/2/2015 11:30:19 AM (South Raven Creek A to A' Final.CSP)

1-36





710' W



A' - E

49005285980000 TENNECO OIL CO 1-36 STATE W2 SW SW T48N R69W S36 ELEV_KB : 4,459 SPUD_DATE : 11/1/1985

		FILE 7 16-NDV-85 22:34 LLS (DHMM) 0.0 10.000 GR (GAPI) LLD (DHMM)	FILE 11 17-HOV-95 06	TENS(LB)
Subsea Depth(ft) -3950 -		GR CGHP (5) COLD (UHPH) CLLD	6.0000 16.000	20000. 0.0 IT (US/F) 40,000
-4000 –				
-4050 –				
-4100 –				
-4150 –	Forelle			
	Glendo	RUD RUD RUD		
-4200 –	Minnekahta			
-4250 –	Opeche			
-4300 –	Minnelusa A Sandstone			
	A Dolomite B Upper Sandstone B Middle Dolomite			
-4350 –				
-4400 –	B Lower Sandstone			
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-4450 –	B Dolomite			
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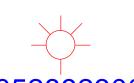
-4600 -

-4650 -

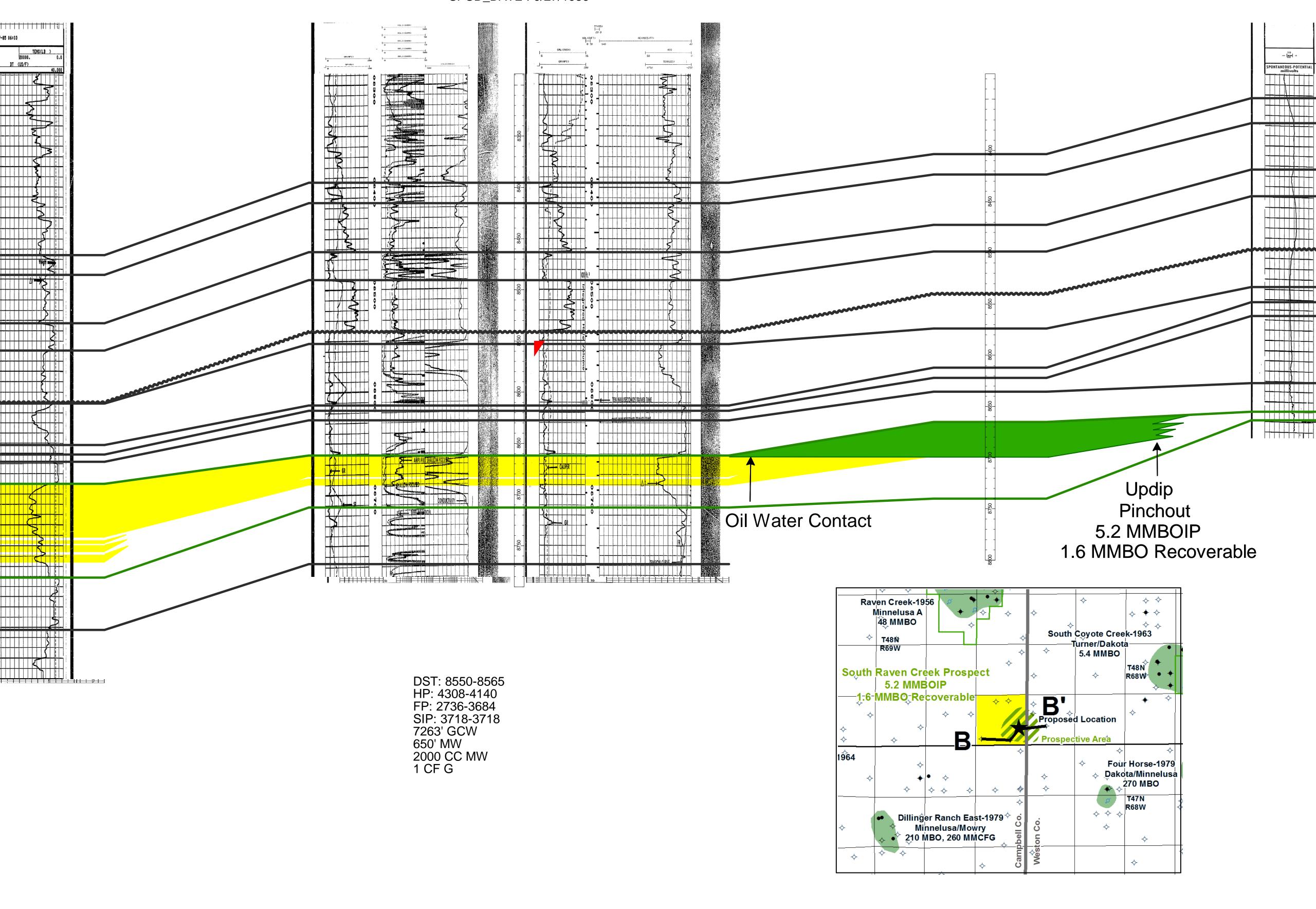
-4700 -

-4750 -

-4800 -



49005289230000 TRUE OIL LLC 34-36 PETERSON-STATE SE SW SE T48N R69W S36 ELEV_KB : 4,339 SPUD_DATE : 9/27/1986





49045089390000	
DOW&MCHUGH-VAUGHN PT	
GOVT-KEWANEE NE SW	
T48N R68W S31 ELEV_KB : 4,478 SPUD_DATE : 12/4/1965	
0.3 1.0 100 1000 3000 MEDIUM INDUCTION 100- RECORDED 51 SHALLOW RECORDED 51 SHALLOW 0.3 1.0 1000 3000 DEEP INDUCTION LOG CALIPER HOLE DIAM. IN INCHES	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Subsea Depth(ft) 3950
	4000
Minnekahta	4050
	4100
	4150
A Sandstone	4150
B Upper Sandstone	4200
B Middle Dolomite	4250
	4300

Carpenter & Sons, Inc. Brice G. Carpenter PRESIDENT LANDMAN CPL 4702 Platte River Business Plaza 1551 Three Crowns Dr., Suite 302 Casper, Wyoming 82604 (307) 265-8895 • Fax: (307) 577-0114 GOOLSBY, FINLEY & ASSOCIATES, LLC consultants to the energy industry 1551 THREE CROWNS DRIVE, SUITE #300 CASPER, WY 82604 307 266 3199 WWW.GOOLSBYFINLEY.COM Figure 8 Minnelusa Exploration South Raven Creek Prospect Structural Cross Section B to B' Horizontal Scale = 233.8 Vertical Scale = 50.0 Vertical Exaggeration = 4.7x UWI Operator Well Number Lease Spot Codes Twn-Rge-Sec ProdFM WELL - ELEV_KB WELL - SPUD_DATE CORES SHOWS DST/WLT IP CASING WATE OTHER PERFS

December 2,2015 11:25 AM

- -4350

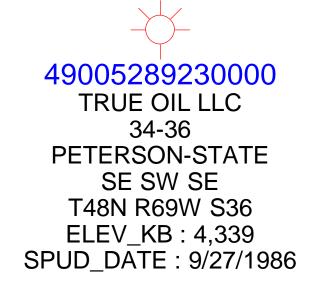
- -4400

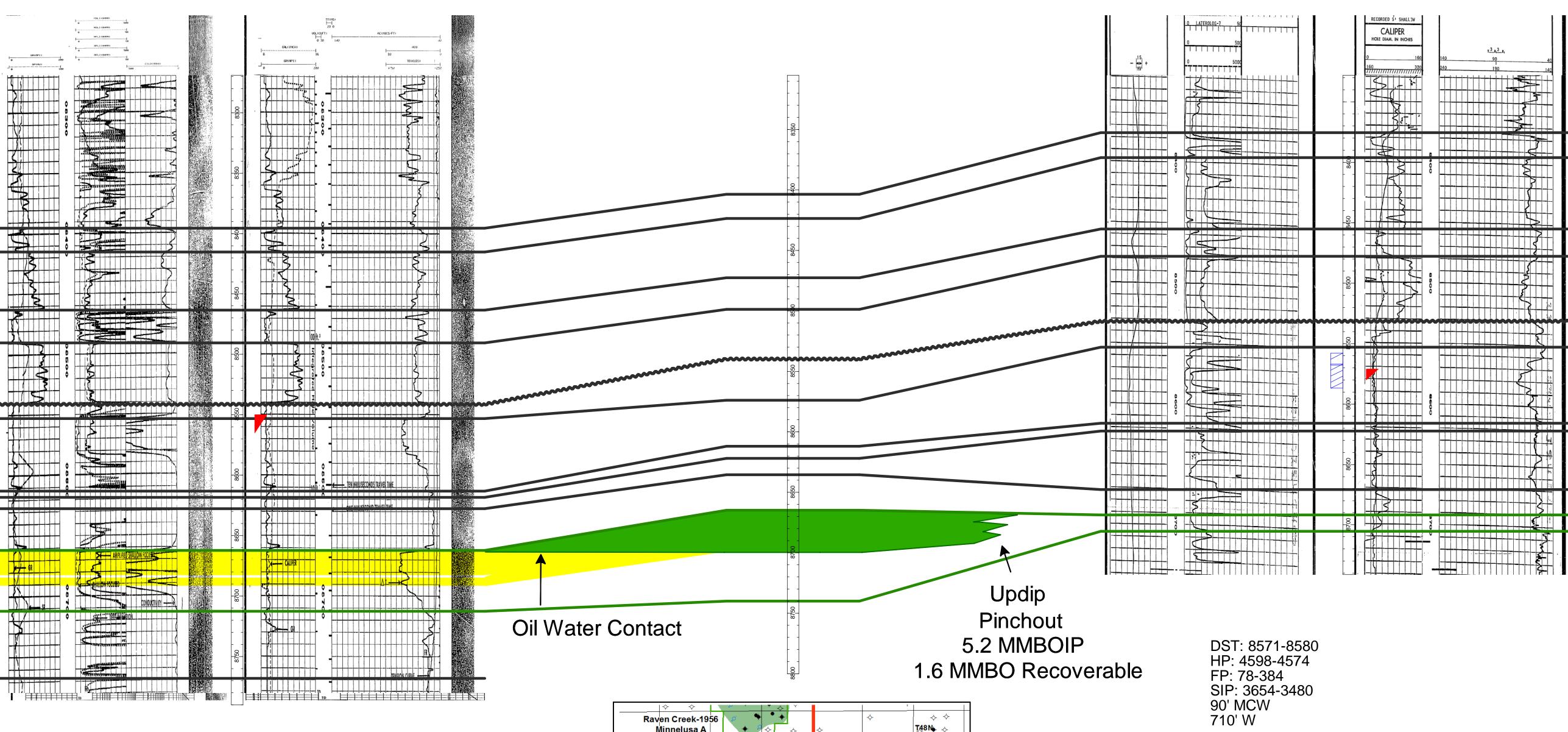
B'-E

C - S	
Subsea Depth(ft) -3930 -	
-3980 -	
-4030 -	
	Forelle
-4080 –	Glendo
-4130 –	Minnekahta
-4180 -	Opeche
	Opeche Minnelusa
-4230 -	A Sandstone
-4280 –	A Dolomite B Upper Sandstone B Middle Dolomite
-4330 -	B Lower Sandstone
-4380 -	•
	B Dolomite
-4430 –	C Sandstone
-4480 -	
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-4580 –	
-4630 -	
-4680 -	

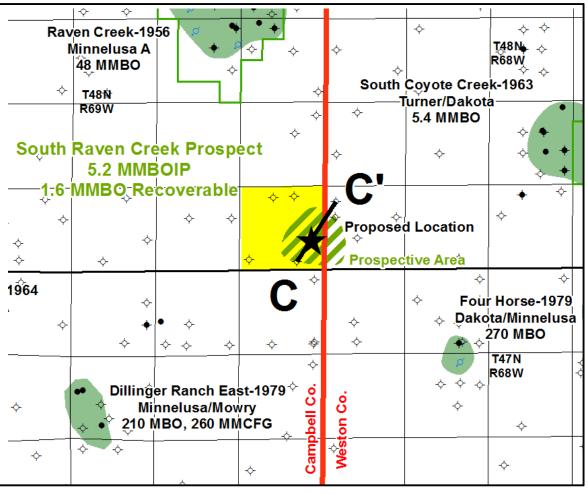
-4730 -

<1,764FT>





DST: 8550-8565 HP: 4308-4140 FP: 2736-3684 SIP: 3718-3718 7263' GCW 650'MW 2000 CC MW 1 CF G



PROPOŚED_WELL ELEV_KB : 4,375

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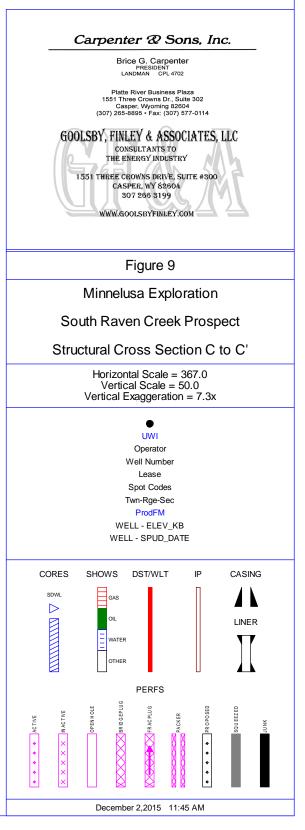
MARIE SOWADA NW NW T48N R68W S31 ELEV_KB : 4,398 SPUD_DATE : 10/26/1963

<2,787FT>

C' -N

	Subsea Depth(ft) – -3930
Forelle	3980
Glendo	4030
Minnekahta	4080
Opeche	
Minnelusa	4130
A Sandstone	4180
A Dolomite B Upper Sandstone	4230
B Middle Dolomite B Lower Sandstone	4280

B Dolomite



- -4330

