FINAL CORE ANALYSIS REPORT

SUNCOR OB LEWIS
100/11-27-092-08W4M/0
WELL LICENCE #: 0473422

Prepared for:

SUNCOR ENERGY INC.
RC31252

March 2015

"In Pursuit of Excellence"

TABLE OF CONTENTS

General Information

CORE ANALYSIS DATA

SUNCOR OB LEWIS
100/11-27-092-08W4M/0

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
					CORE NO. 30 183.50 - 186.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
001	183.50	184.67	1.17	0.10	5.41	4.93	2.47	6.33	0.161	0.188	2260	2700	-	-	ls:vfxln:ppvugs:arg:styl:fracs
002	184.67	186.50	1.83	0.10	0.85	0.80	0.16	1.56	0.107	0.196	2390	2680	-	-	ls:vfxln:ppvugs:arg:styl:fracs
					CORE NO. 31 186.50 - 189.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	186.50	189.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 32 189.50 - 192.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	189.50	192.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 33 192.50 - 195.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	192.50	195.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 34 195.50 - 198.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	195.50	198.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 35 198.50 - 201.10 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)										
NA	198.50	201.10	2.60	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 36 201.10 - 202.00 (CUT / RECEIVED = 0.90 / 0.90 m TOTAL BOXES = 1)										
NA	201.10	202.00	0.90	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 37 202.00 - 204.70 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)										
NA	202.00	204.70	2.70	-	-	-	-	-	-	-	-	-	-	-	ls:sh

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ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
					CORE NO. 38 204.70 - 207.70	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	204.70	207.70	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 39 207.70 - 210.70	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	207.70	210.70	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 40 210.70 - 213.70	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	210.70	213.70	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 41 213.70 - 216.70	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	213.70	216.70	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 42 216.70 - 219.70	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	216.70	219.70	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 43 219.70 - 221.00	(CUT / RECEIVED = 1.30 / 1.30 m	TOTAL BOXES = 1)								
NA	219.70	221.00	1.30	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 44 221.00 - 224.00	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	221.00	224.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 45 224.00 - 227.00	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)								
NA	224.00	227.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 46 227.00 - 229.00	(CUT / RECEIVED = 2.00 / 2.00 m	TOTAL BOXES = 2)								

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NA	227.00	229.00	2.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 47 229.00 - 232.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	229.00	232.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 48 232.00 - 235.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	232.00	235.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 49 235.00 - 238.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	235.00	238.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 50 238.00 - 241.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	238.00	241.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 51 241.00 - 244.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	241.00	244.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 52 244.00 - 247.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	244.00	247.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 53 247.00 - 249.50 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)										
NA	247.00	249.50	2.50	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 54 249.50 - 252.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	249.50	252.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh

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					CORE NO. 55 252.50 - 255.40			(CUT / RECEIVED = 2.90 / 2.90 m		TOTAL BOXES = 2)					
NA	252.50	255.40	2.90	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 56 255.40 - 258.00			(CUT / RECEIVED = 2.60 / 2.60 m		TOTAL BOXES = 2)					
NA	255.40	258.00	2.60	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 57 258.00 - 261.00			(CUT / RECEIVED = 3.00 / 2.80 m		TOTAL BOXES = 2)					
NA	258.00	260.80	2.80	-	-	-	-	-	-	-	-	-	-	-	ls:sh
LC	260.80	261.00	0.20	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 58 261.00 - 263.70			(CUT / RECEIVED = 2.70 / 2.70 m		TOTAL BOXES = 2)					
NA	261.00	263.70	2.70	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 59 263.70 - 265.80			(CUT / RECEIVED = 2.10 / 2.10 m		TOTAL BOXES = 2)					
NA	263.70	265.80	2.10	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 60 265.80 - 268.50			(CUT / RECEIVED = 2.70 / 1.85 m		TOTAL BOXES = 2)					
NA	265.80	267.65	1.85	-	-	-	-	-	-	-	-	-	-	-	ls:sh
LC	267.65	268.50	0.85	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 61 268.50 - 271.50			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
NA	268.50	271.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 62 271.50 - 274.50			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					

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Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
NA	271.50	274.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 63 274.50 - 277.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	274.50	277.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 64 277.50 - 280.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	277.50	280.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 65 280.50 - 283.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	280.50	283.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 66 283.50 - 286.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	283.50	286.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 67 286.50 - 289.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	286.50	289.50	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 68 289.50 - 292.80 (CUT / RECEIVED = 3.30 / 3.30 m TOTAL BOXES = 3)										
NA	289.50	292.80	3.30	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 69 292.80 - 295.80 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	292.80	295.80	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 70 295.80 - 299.00 (CUT / RECEIVED = 3.20 / 3.20 m TOTAL BOXES = 3)										
NA	295.80	299.00	3.20	-	-	-	-	-	-	-	-	-	-	-	ls:sh

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Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
					CORE NO. 71 299.00 - 302.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
NA	299.00	302.00	3.00	-	-	-	-	-	-	-	-	-	-	-	ls:sh
					CORE NO. 72 302.00 - 304.50			(CUT / RECEIVED = 2.50 / 1.50 m		TOTAL BOXES = 1)					
NA	302.00	303.50	1.50	-	-	-	-	-	-	-	-	-	-	-	ls:sh
LC	303.50	304.50	1.00	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 73 304.50 - 307.00			(CUT / RECEIVED = 2.50 / 2.50 m		TOTAL BOXES = 2)					
NA	304.50	307.00	2.50	-	-	-	-	-	-	-	-	-	-	-	ls:dol:sh
					CORE NO. 74 307.00 - 310.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
NA	307.00	310.00	3.00	-	-	-	-	-	-	-	-	-	-	-	sh:dol
					CORE NO. 75 310.00 - 313.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
NA	310.00	313.00	3.00	-	-	-	-	-	-	-	-	-	-	-	sh:dol
					CORE NO. 76 313.00 - 316.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
NA	313.00	316.00	3.00	-	-	-	-	-	-	-	-	-	-	-	sh:dol
					CORE NO. 77 316.00 - 319.00			(CUT / RECEIVED = 3.00 / 2.80 m		TOTAL BOXES = 2)					
NA	316.00	318.80	2.80	-	-	-	-	-	-	-	-	-	-	-	sh:dol
LC	318.80	319.00	0.20	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 78 319.00 - 321.50			(CUT / RECEIVED = 2.50 / 1.70 m		TOTAL BOXES = 2)					

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NA	319.00	320.70	1.70	-	-	-	-		-	-	-	-	-	-	-	sh:dol
LC	320.70	321.50	0.80	-	-	-	-		-	-	-	-	-	-	-	Lost Core
					CORE NO. 79 321.50 - 324.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)											
NA	321.50	324.00	2.50	-	-	-	-		-	-	-	-	-	-	-	sh:dol:anhy
					CORE NO. 80 324.00 - 326.85 (CUT / RECEIVED = 2.85 / 2.85 m TOTAL BOXES = 2)											
NA	324.00	326.85	2.85	-	-	-	-		-	-	-	-	-	-	-	sh:anhy:dol
					CORE NO. 81 326.85 - 328.00 (CUT / RECEIVED = 1.15 / 1.15 m TOTAL BOXES = 1)											
NA	326.85	328.00	1.15	-	-	-	-		-	-	-	-	-	-	-	anhy:ls:sh
					CORE NO. 82 328.00 - 331.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)											
NA	328.00	328.61	0.61	-	-	-	-		-	-	-	-	-	-	-	anhy:ls:sh
003	328.61	329.51	0.90	-	-	-	-		-	-	-	-	-	-	-	ls:Broken Sample
004	329.51	330.00	0.49	0.07	0.40	0.39	0.08		0.20	0.127	0.062	2350	2690	-	-	ls:vfxln:ppvugs:arg:lam:fracs
005	330.00	331.00	1.00	0.09	0.81	0.05	0.08	*	0.81	0.018	0.018	2640	2690	-	-	ls:vfxln:scatvugs:arg:lam:styl:fracs
					CORE NO. 83 331.00 - 334.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)											
006	331.00	331.60	0.60	0.09	0.09	0.08	0.03		0.05	0.064	0.038	2510	2690	-	-	ls:vfxln:arg:lam:styl:fracs
007	331.60	332.13	0.53	0.09	0.03	0.03	0.01		0.02	0.026	0.014	2620	2690	-	-	ls:vfxln:arg:lam:styl:fracs
008	332.13	332.67	0.54	0.10	0.11	0.11	0.02		0.06	0.044	0.024	2580	2700	-	-	ls:vfxln:arg:lam:styl:fracs

* - affected by fracture or crack as mentioned in remarks

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NA	332.67	333.52	0.85	-	-	-	-		-	-	-	-	-	-	-	ls:sh
009	333.52	334.00	0.48	0.09	3.96	2.73	2.54		1.90	0.061	0.029	2650	2820	-	-	dol:vfxln:ppvugs:styl:calc:fracs
					CORE NO. 84	334.00 - 336.00	(CUT / RECEIVED = 2.00 / 2.00 m		TOTAL BOXES = 2)							
010	334.00	335.64	1.64	0.08	7.57	3.93	6.63	*	12.4	0.057	0.093	2660	2820	-	-	dol:vfxln:ppvugs:styl:calc:pyr:fracs
SP011	335.64	336.00	0.36	-	0.01	-	-		0.00	0.047	0.017	2720	2850	-	-	dol:vfxln:ppvugs:calc:pyr
					CORE NO. 85	336.00 - 337.50	(CUT / RECEIVED = 1.50 / 1.50 m		TOTAL BOXES = 1)							
012	336.00	336.97	0.97	0.09	18.2	4.51	25.9	*	17.7	0.077	0.075	2550	2760	-	-	ls:vfxln:vugs:styl:dol:fracs
NA	336.97	337.50	0.53	-	-	-	-		-	-	-	-	-	-	-	dol
					CORE NO. 86	337.50 - 340.50	(CUT / RECEIVED = 3.00 / 2.80 m		TOTAL BOXES = 2)							
NA	337.50	339.25	1.75	-	-	-	-		-	-	-	-	-	-	-	dol
013	339.25	340.30	1.05	0.08	0.09	0.04	1.94	*	0.09	0.051	0.054	2680	2820	-	-	dol:vfxln:ppvugs:calc:fracs
LC	340.30	340.50	0.20	-	-	-	-		-	-	-	-	-	-	-	Lost Core
					CORE NO. 87	340.50 - 343.20	(CUT / RECEIVED = 2.70 / 2.70 m		TOTAL BOXES = 2)							
014	340.50	341.67	1.17	0.07	5.70	3.26	0.38		6.67	0.067	0.078	2620	2810	-	-	dol:vfxln:ppvugs:styl:calc:fracs
015	341.67	342.08	0.41	0.09	1.91	1.23	0.14		0.78	0.087	0.036	2570	2810	-	-	dol:vfxln:ppvugs:styl:calc:fracs
NA	342.08	342.33	0.25	-	-	-	-		-	-	-	-	-	-	-	dol:ls:sh
SP016	342.33	343.20	0.87	-	0.07	-	-		0.06	0.047	0.041	2680	2810	-	-	dol:vfxln:ppvugs:calc:fracs

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ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
					CORE NO. 88 343.20 - 346.00	(CUT / RECEIVED = 2.80 / 2.30 m	TOTAL BOXES = 2)								
SP017	343.20	343.93	0.73	-	0.27	-	-	0.20	0.114	0.083	2520	2840	-	-	dol:vfxln:ppvug:lam:calc:pyr:fracs
018	343.93	344.06	0.13	0.06	4.86	1.32	5.91 *	0.63	0.069	0.009	2510	2700	-	-	ls:vfxln:vugs:lam:styl:fracs
SP019	344.06	344.20	0.14	-	0.01	-	-	0.00	0.025	0.004	2650	2720	-	-	ls:vfxln:ppvugs:pyr
SP020	344.20	344.58	0.38	-	0.01	-	-	0.00	0.030	0.011	2640	2720	-	-	ls:vfxln:styl:pyr
021	344.58	345.50	0.92	0.09	3.25	3.23	1.65	2.99	0.101	0.093	2530	2810	-	-	dol:vfxln:arg:lam:styl:calc:fracs
LC	345.50	346.00	0.50	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 89 346.00 - 348.00	(CUT / RECEIVED = 2.00 / 1.90 m	TOTAL BOXES = 2)								
022	346.00	347.30	1.30	0.06	14.2	4.50	2.68	18.5	0.108	0.140	2500	2800	-	-	dol:vfxln:ppvug:arg:lam:calc:fracs
023	347.30	347.50	0.20	0.07	191. *	3.63	0.28	38.2	0.046	0.009	2590	2710	-	-	ls:vfxln:vugs:arg:styl:fracs
024	347.50	347.90	0.40	0.09	6.51	4.07	11.8 *	2.60	0.048	0.019	2580	2710	-	-	ls:vfxln:vugs:arg:styl:fracs
LC	347.90	348.00	0.10	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 90 348.00 - 349.00	(CUT / RECEIVED = 1.00 / 0.60 m	TOTAL BOXES = 1)								
SP025	348.00	348.60	0.60	-	0.01	-	-	0.01	0.032	0.019	2620	2710	-	-	ls:vfxln:ppvugs:arg:styl:fracs
LC	348.60	349.00	0.40	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 91 349.00 - 349.20	(CUT / RECEIVED = 0.20 / 0.20 m	TOTAL BOXES = 1)								
NA	349.00	349.20	0.20	-	-	-	-	-	-	-	-	-	-	-	ls
					CORE NO. 92 349.20 - 350.00	(CUT / RECEIVED = 0.80 / 0.80 m	TOTAL BOXES = 1)								
026	349.20	350.00	0.80	0.07	20.2 *	0.07	0.11 *	16.2	0.027	0.022	2610	2690	-	-	ls:vfxln:arg:lam:styl:fracs

* - affected by fracture or crack as mentioned in remarks

AGAT® Laboratories

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
					CORE NO. 93 350.00 - 352.00			(CUT / RECEIVED = 2.00 / 0.90 m		TOTAL BOXES = 1)					
SP027	350.00	350.90	0.90	-	0.10	-	-	0.09	0.050	0.045	2570	2710	-	-	ls:vfxln:ppvugs:arg:styl:fracs
LC	350.90	352.00	1.10	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 94 352.00 - 354.00			(CUT / RECEIVED = 2.00 / 1.60 m		TOTAL BOXES = 2)					
028	352.00	352.32	0.32	-	-	-	-	-	-	-	-	-	-	-	ls:Broken Sample
029	352.32	353.01	0.69	0.04	30.5	29.0	5.86	21.0	0.154	0.106	2320	2740	-	-	ls:vfxln:vugs:dol:fracs
030	353.01	353.60	0.59	-	-	-	-	-	-	-	-	-	-	-	ls:Broken Sample
LC	353.60	354.00	0.40	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 95 354.00 - 357.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)					
031	354.00	354.79	0.79	0.06	7.17	6.94	1.45	5.66	0.129	0.102	2470	2840	-	-	dol:vfxln:ppvugs:arg:styl:fracs
SP032	354.79	354.95	0.16	-	1.36	-	-	0.22	0.150	0.024	2410	2840	-	-	dol:vfxln:ppvugs:arg:lam:styl
033	354.95	355.20	0.25	0.09	17.2	16.9	11.6	4.30	0.185	0.046	2300	2830	-	-	dol:vfxln:ppvugs:arg:styl
034	355.20	356.64	1.44	0.08	14.6	11.9	8.74	21.0	0.160	0.230	2370	2820	-	-	dol:vfxln:ppvugs:arg:styl:calc
035	356.64	357.00	0.36	0.07	5.77	4.88	3.13	2.08	0.157	0.057	2390	2840	-	-	dol:vfxln:ppvugs:arg:styl:fracs
					CORE NO. 96 357.00 - 357.70			(CUT / RECEIVED = 0.70 / 0.70 m		TOTAL BOXES = 1)					
036	357.00	357.70	0.70	0.09	11.7	11.0	10.8	8.19	0.144	0.101	2430	2830	-	-	dol:vfxln:vugs:arg:fracs
					CORE NO. 97 357.70 - 360.00			(CUT / RECEIVED = 2.30 / 2.30 m		TOTAL BOXES = 2)					
037	357.70	358.46	0.76	0.09	23.0	18.1	8.93	17.5	0.207	0.157	2250	2830	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
038	358.46	359.13	0.67	0.08	630. *	72.1	1110. *	422.	0.206	0.138	2230	2800	-	-	dol:vfxln:vugs:arg:styl:calc:fracs

* - affected by fracture or crack as mentioned in remarks

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)		Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
039	359.13	360.00	0.87	0.10	19.4	19.4	16.2		16.9	0.144	0.125	2430	2830	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
					CORE NO. 98 360.00 - 362.10 (CUT / RECEIVED = 2.10 / 0.80 m TOTAL BOXES = 1)											
NA	360.00	360.80	0.80	-	-	-	-		-	-	-	-	-	-	-	dol:sh
LC	360.80	362.10	1.30	-	-	-	-		-	-	-	-	-	-	-	Lost Core
					CORE NO. 99 362.10 - 364.00 (CUT / RECEIVED = 1.90 / 1.90 m TOTAL BOXES = 2)											
040	362.10	362.55	0.45	0.10	42.4	4.46	8.11	*	19.1	0.115	0.052	2500	2820	-	-	dol:vfxln:ppvug:arg:styl:calc:fracs
041	362.55	363.34	0.79	0.08	6.26	0.26	0.15		4.95	0.084	0.066	2590	2830	-	-	dol:vfxln:ppvug:carbptg:calc:fracs
042	363.34	364.00	0.66	0.09	104.	100.	55.2		68.6	0.197	0.130	2260	2820	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
					CORE NO. 100 364.00 - 364.30 (CUT / RECEIVED = 0.30 / 0.30 m TOTAL BOXES = 1)											
SP043	364.00	364.30	0.30	-	4.96	-	-		1.49	0.087	0.026	2600	2840	-	-	dol:vfxln:ppvugs:arg:styl:fracs
					CORE NO. 101 364.30 - 367.00 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)											
044	364.30	365.03	0.73	0.10	0.14	0.13	0.08		0.10	0.068	0.050	2640	2840	-	-	dol:vfxln:ppvugs:arg:styl:fracs
045	365.03	365.28	0.25	0.06	5.11	4.91	4.06		1.28	0.094	0.024	2550	2820	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
046	365.28	365.72	0.44	0.06	0.20	0.13	0.07		0.09	0.087	0.038	2570	2820	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
047	365.72	366.28	0.56	0.06	1.42	1.33	0.73		0.80	0.132	0.074	2450	2820	-	-	dol:vfxln:vugs:styl:calc:pyr:fracs
048	366.28	367.00	0.72	0.08	3.14	1.53	0.25		2.26	0.085	0.061	2590	2820	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
					CORE NO. 102 367.00 - 370.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)											
049	367.00	367.77	0.77	0.10	0.32	0.24	0.11		0.25	0.063	0.049	2650	2820	-	-	dol:vfxln:ppvugs:arg:styl:fracs

* - affected by fracture or crack as mentioned in remarks

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
050	367.77	368.50	0.73	0.08	30.2	7.82	0.25	22.0	0.084	0.061	2580	2820	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
051	368.50	369.28	0.78	0.09	6.35	5.77	0.68	4.95	0.139	0.108	2420	2810	-	-	dol:vfxln:vugs:arg:styl:calc:fracs
052	369.28	370.00	0.72	0.06	0.26	0.22	0.15	0.19	0.083	0.060	2600	2830	-	-	dol:vfxln:vugs:arg:styl:fracs
CORE NO. 103 370.00 - 371.00 (CUT / RECEIVED = 1.00 / 0.90 m TOTAL BOXES = 1)															
053	370.00	370.90	0.90	0.09	1.24	0.93	0.29	1.12	0.106	0.095	2520	2820	-	-	dol:vfxln:ppvugs:arg:styl:fracs
LC	370.90	371.00	0.10	-	-	-	-	-	-	-	-	-	-	-	Lost Core
CORE NO. 104 371.00 - 374.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)															
054	371.00	371.26	0.26	0.08	3.40	2.97	0.50	0.88	0.120	0.031	2480	2820	-	-	dol:vfxln:ppvugs:arg:styl:fracs
055	371.26	371.89	0.63	0.09	9.20	8.09	4.46	5.80	0.149	0.094	2400	2830	-	-	dol:vfxln:ppvugs:arg:styl:fracs
056	371.89	372.42	0.53	0.10	4.17	4.12	1.90	2.21	0.143	0.076	2400	2810	-	-	dol:vfxln:ppvugs:arg:styl:fracs
057	372.42	372.77	0.35	0.09	2.70	2.52	0.47	0.95	0.135	0.047	2430	2810	-	-	dol:vfxln:ppvugs:arg:styl:fracs
NA	372.77	373.18	0.41	-	-	-	-	-	-	-	-	-	-	-	dol
058	373.18	374.00	0.82	0.10	3.18	1.71	0.09	2.61	0.103	0.084	2530	2820	-	-	dol:vfxln:vugs:arg:styl:fracs
CORE NO. 105 374.00 - 377.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)															
NA	374.00	374.54	0.54	-	-	-	-	-	-	-	-	-	-	-	dol
059	374.54	375.50	0.96	0.09	7.12	5.56	4.16	6.84	0.120	0.115	2470	2810	-	-	dol:vfxln:ppvugs:arg:styl:fracs
060	375.50	376.25	0.75	0.08	9.49	8.31	1.33	7.12	0.168	0.126	2340	2810	-	-	dol:vfxln:ppvugs:arg:styl:pyr:fracs
061	376.25	377.00	0.75	0.09	15.6	12.8	2.05	11.7	0.160	0.120	2330	2780	-	-	dol:vfxln:ppvugs:arg:styl:cht:fracs
CORE NO. 106 377.00 - 380.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)															
062	377.00	377.75	0.75	0.10	1.32	1.21	0.39	0.99	0.095	0.071	2560	2830	-	-	dol:vf-fxln:ppvug:arg:carbptg:fracs

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
063	377.75	378.50	0.75	0.10	0.25	0.23	0.10	0.19	0.075	0.056	2610	2820	-	-	dol:vf-fxln:ppvugs:arg:carb:fracs
064	378.50	379.25	0.75	0.07	0.06	0.05	0.02	0.05	0.059	0.044	2670	2830	-	-	dol:vf-fxln:ppvugs:arg:fracs
065	379.25	380.00	0.75	0.08	0.03	0.03	0.01	0.02	0.063	0.047	2640	2820	-	-	dol:vfxln:ppvugs:arg:lam:carbptg
					CORE NO. 107 380.00 - 382.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)										
066	380.00	380.44	0.44	0.09	3.39	2.43	0.04	1.49	0.087	0.038	2580	2830	-	-	dol:vfxln:ppvugs:arg:lam:styl:fracs
067	380.44	382.00	1.56	0.09	12.8	9.59	1.71	20.0	0.203	0.317	2190	2740	-	-	dol:vfxln:ppvug:arg:carb:cht:fracs
					CORE NO. 108 382.00 - 385.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
068	382.00	383.39	1.39	0.09	10.3	9.57	2.78	14.3	0.173	0.240	2300	2780	-	-	dol:vfxln:ppvug:arg:carb:cht:fracs
069	383.39	385.00	1.61	0.11	2.35	2.11	0.19	3.78	0.138	0.222	2400	2790	-	-	dol:vfxln:ppvug:arg:carb:cht:fracs
					CORE NO. 109 385.00 - 388.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										
NA	385.00	388.00	3.00	-	-	-	-	-	-	-	-	-	-	-	dol:sh
					CORE NO. 110 388.00 - 390.60 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)										
070	388.00	390.60	2.60	0.09	0.05	0.03	0.01	0.13	0.083	0.216	2590	2820	-	-	dol:vfxln:ppvugs:arg:carbptg
					CORE NO. 111 390.60 - 393.50 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)										
NA	390.60	393.50	2.90	-	-	-	-	-	-	-	-	-	-	-	dol:anhy:gyp:sh
					CORE NO. 112 393.50 - 396.40 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)										
NA	393.50	396.40	2.90	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 113 396.40 - 399.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)										

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
NA	396.40	399.40	3.00	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 114 399.40 - 402.40			(CUT / RECEIVED = 3.00 / 3.00 m			TOTAL BOXES = 2)				
NA	399.40	402.40	3.00	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 115 402.40 - 405.40			(CUT / RECEIVED = 3.00 / 3.00 m			TOTAL BOXES = 2)				
NA	402.40	405.40	3.00	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 116 405.40 - 407.80			(CUT / RECEIVED = 2.40 / 2.40 m			TOTAL BOXES = 2)				
NA	405.40	407.80	2.40	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 117 407.80 - 410.10			(CUT / RECEIVED = 2.30 / 2.30 m			TOTAL BOXES = 2)				
NA	407.80	410.10	2.30	-	-	-	-	-	-	-	-	-	-	-	dol:sh:anhy:gyp
					CORE NO. 118 410.10 - 412.80			(CUT / RECEIVED = 2.70 / 2.70 m			TOTAL BOXES = 2)				
NA	410.10	412.80	2.70	-	-	-	-	-	-	-	-	-	-	-	sh:dol:anhy:gyp
					CORE NO. 119 412.80 - 415.50			(CUT / RECEIVED = 2.70 / 2.70 m			TOTAL BOXES = 2)				
NA	412.80	415.50	2.70	-	-	-	-	-	-	-	-	-	-	-	sh:dol:anhy:gyp
					CORE NO. 120 415.50 - 418.00			(CUT / RECEIVED = 2.50 / 2.50 m			TOTAL BOXES = 2)				
NA	415.50	418.00	2.50	-	-	-	-	-	-	-	-	-	-	-	sh:ss:anhy:gyp
					CORE NO. 121 418.00 - 420.50			(CUT / RECEIVED = 2.50 / 2.30 m			TOTAL BOXES = 2)				
NA	418.00	418.95	0.95	-	-	-	-	-	-	-	-	-	-	-	sh:ss:anhy:gyp

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

ROUTINE CORE ANALYSIS

Sample	Interval (m) Top	Interval (m) Base	Rep Thick (m)	Sample Length (m)	Gas Permeability Kmax (mD)	Gas Permeability K90 (mD)	Gas Permeability Kv (mD)	Capacity Kmax mD·m	Porosity	Capacity Ø·m	Density (Kg/m³) Bulk	Density (Kg/m³) Grain	Residual Saturation Oil	Residual Saturation Water	Remarks
SP071	418.95	419.10	0.15	-	5.91	-	-	0.89	0.118	0.018	2370	2690	-	-	ss:vf-cgr:arg:dol:fracs
NA	419.10	420.30	1.20	-	-	-	-	-	-	-	-	-	-	-	sh:ss:anhy:gyp
LC	420.30	420.50	0.20	-	-	-	-	-	-	-	-	-	-	-	Lost Core
					CORE NO. 122 420.50 - 422.60 (CUT / RECEIVED = 2.10 / 2.10 m TOTAL BOXES = 2)										
NA	420.50	422.60	2.10	-	-	-	-	-	-	-	-	-	-	-	sh:ss:anhy:gyp
					CORE NO. 123 422.60 - 425.00 (CUT / RECEIVED = 2.40 / 2.40 m TOTAL BOXES = 2)										
NA	422.60	425.00	2.40	-	-	-	-	-	-	-	-	-	-	-	sh:ss:anhy:gyp

CORE ANALYSIS - QUALITY CONTROL REPORT

CORE NO. 30 183.50 - 186.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

001	183.50 - 184.67
002	184.67 - 186.50

CORE NO. 31 186.50 - 189.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA	186.50 - 189.50

CORE NO. 32 189.50 - 192.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA	189.50 - 192.50

CORE NO. 33 192.50 - 195.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA	192.50 - 195.50

CORE NO. 34 195.50 - 198.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 195.50 - 198.50

CORE NO. 35 198.50 - 201.10 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)

NA 198.50 - 201.10

CORE NO. 36 201.10 - 202.00 (CUT / RECEIVED = 0.90 / 0.90 m TOTAL BOXES = 1)

NA 201.10 - 202.00

CORE NO. 37 202.00 - 204.70 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

NA 202.00 - 204.70

CORE NO. 38 204.70 - 207.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 204.70 - 207.70

CORE NO. 39 207.70 - 210.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 207.70 - 210.70

CORE NO. 40 210.70 - 213.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 210.70 - 213.70

CORE NO. 41 213.70 - 216.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 213.70 - 216.70

CORE NO. 42 216.70 - 219.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 216.70 - 219.70

CORE NO. 43 219.70 - 221.00 (CUT / RECEIVED = 1.30 / 1.30 m TOTAL BOXES = 1)

NA 219.70 - 221.00

CORE NO. 44 221.00 - 224.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 221.00 - 224.00

CORE NO. 45 224.00 - 227.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 224.00 - 227.00

CORE NO. 46 227.00 - 229.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)

NA 227.00 - 229.00

CORE NO. 47 229.00 - 232.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 229.00 - 232.00

CORE NO. 48 232.00 - 235.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 232.00 - 235.00

CORE NO. 49 235.00 - 238.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 235.00 - 238.00

CORE NO. 50 238.00 - 241.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 238.00 - 241.00

CORE NO. 51 241.00 - 244.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 241.00 - 244.00

CORE NO. 52 244.00 - 247.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 244.00 - 247.00

CORE NO. 53 247.00 - 249.50 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)

NA 247.00 - 249.50

CORE NO. 54 249.50 - 252.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 249.50 - 252.50

CORE NO. 55 252.50 - 255.40 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)

NA 252.50 - 255.40

CORE NO. 56 255.40 - 258.00 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)

NA 255.40 - 258.00

CORE NO. 57 258.00 - 261.00 (CUT / RECEIVED = 3.00 / 2.80 m TOTAL BOXES = 2)

NA 258.00 - 260.80
LC 260.80 - 261.00

CORE NO. 58 261.00 - 263.70 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

NA 261.00 - 263.70

CORE NO. 59 263.70 - 265.80 (CUT / RECEIVED = 2.10 / 2.10 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 263.70 - 265.80

CORE NO. 60 265.80 - 268.50 (CUT / RECEIVED = 2.70 / 1.85 m TOTAL BOXES = 2)

NA 265.80 - 267.65
LC 267.65 - 268.50

CORE NO. 61 268.50 - 271.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 268.50 - 271.50

CORE NO. 62 271.50 - 274.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 271.50 - 274.50

CORE NO. 63 274.50 - 277.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 274.50 - 277.50

CORE NO. 64 277.50 - 280.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 277.50 - 280.50

CORE NO. 65 280.50 - 283.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 280.50 - 283.50

CORE NO. 66 283.50 - 286.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 283.50 - 286.50

CORE NO. 67 286.50 - 289.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 286.50 - 289.50

CORE NO. 68 289.50 - 292.80 (CUT / RECEIVED = 3.30 / 3.30 m TOTAL BOXES = 3)

NA 289.50 - 292.80

CORE NO. 69 292.80 - 295.80 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 292.80 - 295.80

CORE NO. 70 295.80 - 299.00 (CUT / RECEIVED = 3.20 / 3.20 m TOTAL BOXES = 3)

NA 295.80 - 299.00

CORE NO. 71 299.00 - 302.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 299.00 - 302.00

CORE NO. 72 302.00 - 304.50 (CUT / RECEIVED = 2.50 / 1.50 m TOTAL BOXES = 1)

NA 302.00 - 303.50
LC 303.50 - 304.50

CORE NO. 73 304.50 - 307.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)

NA 304.50 - 307.00

CORE NO. 74 307.00 - 310.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 307.00 - 310.00

CORE NO. 75 310.00 - 313.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 310.00 - 313.00

CORE NO. 76 313.00 - 316.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 313.00 - 316.00

CORE NO. 77 316.00 - 319.00 (CUT / RECEIVED = 3.00 / 2.80 m TOTAL BOXES = 2)

NA 316.00 - 318.80
LC 318.80 - 319.00

CORE NO. 78 319.00 - 321.50 (CUT / RECEIVED = 2.50 / 1.70 m TOTAL BOXES = 2)

NA 319.00 - 320.70
LC 320.70 - 321.50

CORE NO. 79 321.50 - 324.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 321.50 - 324.00

CORE NO. 80 324.00 - 326.85 (CUT / RECEIVED = 2.85 / 2.85 m TOTAL BOXES = 2)

NA 324.00 - 326.85

CORE NO. 81 326.85 - 328.00 (CUT / RECEIVED = 1.15 / 1.15 m TOTAL BOXES = 1)

NA 326.85 - 328.00

CORE NO. 82 328.00 - 331.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 328.00 - 328.61
003 328.61 - 329.51
004 329.51 - 330.00
- KMax (0.40) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.88 - 31.8) results verified
- K90 (0.39) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.64 - 22.9) results verified
- Kv (0.08) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.32 - 11.6) results verified
005 330.00 - 331.00

CORE NO. 83 331.00 - 334.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

006 331.00 - 331.60
007 331.60 - 332.13
008 332.13 - 332.67
NA 332.67 - 333.52
009 333.52 - 334.00
- KMax (3.96) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.03 - 1.19) horizontal fractures;results verified
- K90 (2.73) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.04 - 1.35) horizontal fractures;results verified
- Kv (2.54) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.01 - 0.45) vertical fractures;results verified

CORE NO. 84 334.00 - 336.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)

010 334.00 - 335.64
- KMax (7.57) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.03 - 0.98) horizontal fractures;results verified
- K90 (3.93) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.03 - 1.14) horizontal fractures;results verified
SP011 335.64 - 336.00
- KMax (0.01) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.02 - 0.59) results verified

CORE NO. 85 336.00 - 337.50 (CUT / RECEIVED = 1.50 / 1.50 m TOTAL BOXES = 1)

012 336.00 - 336.97
- KMax (18.2) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.07 - 2.64) horizontal fractures;results verified
- K90 (4.51) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.07 - 2.69) horizontal fractures;results verified
NA 336.97 - 337.50

CORE NO. 86 337.50 - 340.50 (CUT / RECEIVED = 3.00 / 2.80 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 337.50 - 339.25
013 339.25 - 340.30
LC 340.30 - 340.50

CORE NO. 87 340.50 - 343.20 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

014 340.50 - 341.67
- KMax (5.70) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.04 - 1.61) horizontal fractures;results verified
- K90 (3.26) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.05 - 1.75) horizontal fractures;results verified

015 341.67 - 342.08
NA 342.08 - 342.33
SP016 342.33 - 343.20

CORE NO. 88 343.20 - 346.00 (CUT / RECEIVED = 2.80 / 2.30 m TOTAL BOXES = 2)

SP017 343.20 - 343.93
- KMax (0.27) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.46 - 16.7) results verified

018 343.93 - 344.06
- KMax (4.86) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.05 - 1.77) horizontal fractures;results verified

SP019 344.06 - 344.20
SP020 344.20 - 344.58
021 344.58 - 345.50
LC 345.50 - 346.00

CORE ANALYSIS - QUALITY CONTROL REPORT

CORE NO. 89 346.00 - 348.00 (CUT / RECEIVED = 2.00 / 1.90 m TOTAL BOXES = 2)

022	346.00 - 347.30	
- KMax (14.2) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.34 - 12.4)		horizontal fractures;results verified
023	347.30 - 347.50	
- K90 (3.63) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.02 - 0.71)		horizontal fractures;results verified
- Kv (0.28) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.01 - 0.21)		vertical fractures;results verified
024	347.50 - 347.90	
- KMax (6.51) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.02 - 0.62)		horizontal fractures;results verified
- K90 (4.07) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.02 - 0.78)		horizontal fractures;results verified
LC	347.90 - 348.00	

CORE NO. 90 348.00 - 349.00 (CUT / RECEIVED = 1.00 / 0.60 m TOTAL BOXES = 1)

SP025	348.00 - 348.60
LC	348.60 - 349.00

CORE NO. 91 349.00 - 349.20 (CUT / RECEIVED = 0.20 / 0.20 m TOTAL BOXES = 1)

NA	349.00 - 349.20

CORE NO. 92 349.20 - 350.00 (CUT / RECEIVED = 0.80 / 0.80 m TOTAL BOXES = 1)

CORE ANALYSIS - QUALITY CONTROL REPORT

026 349.20 - 350.00

CORE NO. 93 350.00 - 352.00 (CUT / RECEIVED = 2.00 / 0.90 m TOTAL BOXES = 1)

SP027 350.00 - 350.90
LC 350.90 - 352.00

CORE NO. 94 352.00 - 354.00 (CUT / RECEIVED = 2.00 / 1.60 m TOTAL BOXES = 2)

028 352.00 - 352.32
029 352.32 - 353.01
030 353.01 - 353.60
LC 353.60 - 354.00

CORE NO. 95 354.00 - 357.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

031 354.00 - 354.79
SP032 354.79 - 354.95
- KMax (1.36) IS OUTSIDE FOUR STANDARD DEVIATIONS (2.78 - 99.9) results verified
033 354.95 - 355.20
034 355.20 - 356.64
035 356.64 - 357.00

CORE ANALYSIS - QUALITY CONTROL REPORT

CORE NO. 96 357.00 - 357.70 (CUT / RECEIVED = 0.70 / 0.70 m TOTAL BOXES = 1)

036 357.00 - 357.70

CORE NO. 97 357.70 - 360.00 (CUT / RECEIVED = 2.30 / 2.30 m TOTAL BOXES = 2)

037 357.70 - 358.46
- KMax (23.0) IS OUTSIDE FOUR STANDARD DEVIATIONS (47.3 - 1700) results verified
- K90 (18.1) IS OUTSIDE FOUR STANDARD DEVIATIONS (19.7 - 708) results verified
- Kv (8.93) IS OUTSIDE FOUR STANDARD DEVIATIONS (16.7 - 600) results verified

038 358.46 - 359.13
039 359.13 - 360.00

CORE NO. 98 360.00 - 362.10 (CUT / RECEIVED = 2.10 / 0.80 m TOTAL BOXES = 1)

NA 360.00 - 360.80
LC 360.80 - 362.10

CORE NO. 99 362.10 - 364.00 (CUT / RECEIVED = 1.90 / 1.90 m TOTAL BOXES = 2)

040 362.10 - 362.55

CORE ANALYSIS - QUALITY CONTROL REPORT

- KMax (42.4) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.49 - 17.5) horizontal fractures;results verified

041 362.55 - 363.34

- KMax (6.26) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.74) horizontal fractures;results verified

042 363.34 - 364.00

CORE NO. 100 364.00 - 364.30 (CUT / RECEIVED = 0.30 / 0.30 m TOTAL BOXES = 1)

SP043 364.00 - 364.30

- KMax (4.96) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.12 - 4.35) fractures;results verified

CORE NO. 101 364.30 - 367.00 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

044 364.30 - 365.03

045 365.03 - 365.28

- Kv (4.06) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.06 - 2.28) vertical fractures;results verified

046 365.28 - 365.72

047 365.72 - 366.28

048 366.28 - 367.00

CORE NO. 102 367.00 - 370.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

049 367.00 - 367.77

050 367.77 - 368.50

CORE ANALYSIS - QUALITY CONTROL REPORT

- KMax (30.2)	IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.74)		horizontal fractures;results verified
- K90 (7.82)	IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.63)		horizontal fractures;results verified
051	368.50 - 369.28		
052	369.28 - 370.00		
	CORE NO. 103 370.00 - 371.00	(CUT / RECEIVED = 1.00 / 0.90 m	TOTAL BOXES = 1)
053	370.00 - 370.90		
LC	370.90 - 371.00		
	CORE NO. 104 371.00 - 374.00	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)
054	371.00 - 371.26		
055	371.26 - 371.89		
056	371.89 - 372.42		
057	372.42 - 372.77		
- Kv (0.47)	IS OUTSIDE FOUR STANDARD DEVIATIONS (0.48 - 17.2)		results verified
NA	372.77 - 373.18		
058	373.18 - 374.00		
- Kv (0.09)	IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.56)		results verified
	CORE NO. 105 374.00 - 377.00	(CUT / RECEIVED = 3.00 / 3.00 m	TOTAL BOXES = 2)
NA	374.00 - 374.54		

CORE ANALYSIS - QUALITY CONTROL REPORT

059 374.54 - 375.50
060 375.50 - 376.25
- Kv (1.33) IS OUTSIDE FOUR STANDARD DEVIATIONS (2.44 - 87.7) results verified
061 376.25 - 377.00

CORE NO. 106 377.00 - 380.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

062 377.00 - 377.75
063 377.75 - 378.50
064 378.50 - 379.25
065 379.25 - 380.00
- KMax (0.03) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.04 - 1.32) results verified
- K90 (0.03) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.04 - 1.48) results verified

CORE NO. 107 380.00 - 382.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)

066 380.00 - 380.44
067 380.44 - 382.00
- KMax (12.8) IS OUTSIDE FOUR STANDARD DEVIATIONS (38.8 - 1400) results verified
- K90 (9.59) IS OUTSIDE FOUR STANDARD DEVIATIONS (16.6 - 597) results verified
- Kv (1.71) IS OUTSIDE FOUR STANDARD DEVIATIONS (13.7 - 493) results verified

CORE NO. 108 382.00 - 385.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

068 382.00 - 383.39
- Kv (2.78) IS OUTSIDE FOUR STANDARD DEVIATIONS (3.12 - 112) results verified

069 383.39 - 385.00
- Kv (0.19) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.55 - 20) laminae;results verified

CORE NO. 109 385.00 - 388.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 385.00 - 388.00

CORE NO. 110 388.00 - 390.60 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)

070 388.00 - 390.60
- KMax (0.05) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.56) results verified
- K90 (0.03) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.1 - 3.48) results verified
- Kv (0.01) IS OUTSIDE FOUR STANDARD DEVIATIONS (0.04 - 1.33) results verified

CORE NO. 111 390.60 - 393.50 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)

NA 390.60 - 393.50

CORE NO. 112 393.50 - 396.40 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)

NA 393.50 - 396.40

CORE NO. 113 396.40 - 399.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 396.40 - 399.40

CORE NO. 114 399.40 - 402.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 399.40 - 402.40

CORE NO. 115 402.40 - 405.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)

NA 402.40 - 405.40

CORE NO. 116 405.40 - 407.80 (CUT / RECEIVED = 2.40 / 2.40 m TOTAL BOXES = 2)

NA 405.40 - 407.80

CORE NO. 117 407.80 - 410.10 (CUT / RECEIVED = 2.30 / 2.30 m TOTAL BOXES = 2)

NA 407.80 - 410.10

CORE NO. 118 410.10 - 412.80 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA	410.10 - 412.80

CORE NO. 119 412.80 - 415.50 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)

NA	412.80 - 415.50

CORE NO. 120 415.50 - 418.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)

NA	415.50 - 418.00

CORE NO. 121 418.00 - 420.50 (CUT / RECEIVED = 2.50 / 2.30 m TOTAL BOXES = 2)

NA	418.00 - 418.95
SP071	418.95 - 419.10
NA	419.10 - 420.30
LC	420.30 - 420.50

CORE NO. 122 420.50 - 422.60 (CUT / RECEIVED = 2.10 / 2.10 m TOTAL BOXES = 2)

NA	420.50 - 422.60

CORE NO. 123 422.60 - 425.00 (CUT / RECEIVED = 2.40 / 2.40 m TOTAL BOXES = 2)

CORE ANALYSIS - QUALITY CONTROL REPORT

NA 422.60 - 425.00

Approved : _____ _____

Quality Control Supervisor Date

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
					CORE NO. 30 183.50 - 186.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
001	183.50	184.67	1.17	1.17	0.161	0.188	0.188	0.161	5.41	6.33	6.33	5.41
002	184.67	186.50	1.83	3.00	0.107	0.196	0.384	0.128	0.85	1.56	7.89	2.63
					CORE NO. 31 186.50 - 189.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	186.50	189.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 32 189.50 - 192.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	189.50	192.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 33 192.50 - 195.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	192.50	195.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 34 195.50 - 198.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	195.50	198.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 35 198.50 - 201.10 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	198.50	201.10	2.60	-	-	-	-	-	-	-	-	-
					CORE NO. 36 201.10 - 202.00 (CUT / RECEIVED = 0.90 / 0.90 m TOTAL BOXES = 1)							
NA	201.10	202.00	0.90	-	-	-	-	-	-	-	-	-
					CORE NO. 37 202.00 - 204.70 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
NA	202.00	204.70	2.70	-	-	-	-	-	-	-	-	-
					CORE NO. 38 204.70 - 207.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	204.70	207.70	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 39 207.70 - 210.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	207.70	210.70	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 40 210.70 - 213.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	210.70	213.70	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 41 213.70 - 216.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	213.70	216.70	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 42 216.70 - 219.70 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	216.70	219.70	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 43 219.70 - 221.00 (CUT / RECEIVED = 1.30 / 1.30 m TOTAL BOXES = 1)							
NA	219.70	221.00	1.30	-	-	-	-	-	-	-	-	-
					CORE NO. 44 221.00 - 224.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	221.00	224.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 45 224.00 - 227.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	224.00	227.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 46 227.00 - 229.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)							
NA	227.00	229.00	2.00	-	-	-	-	-	-	-	-	-
					CORE NO. 47 229.00 - 232.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	229.00	232.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 48 232.00 - 235.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	232.00	235.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 49 235.00 - 238.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	235.00	238.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 50 238.00 - 241.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	238.00	241.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 51 241.00 - 244.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	241.00	244.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 52 244.00 - 247.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	244.00	247.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 53 247.00 - 249.50 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	247.00	249.50	2.50	-	-	-	-	-	-	-	-	-
					CORE NO. 54 249.50 - 252.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	249.50	252.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 55 252.50 - 255.40 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)							
NA	252.50	255.40	2.90	-	-	-	-	-	-	-	-	-
					CORE NO. 56 255.40 - 258.00 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)							
NA	255.40	258.00	2.60	-	-	-	-	-	-	-	-	-
					CORE NO. 57 258.00 - 261.00 (CUT / RECEIVED = 3.00 / 2.80 m TOTAL BOXES = 2)							
NA	258.00	260.80	2.80	-	-	-	-	-	-	-	-	-
LC	260.80	261.00	0.20	-	-	-	-	-	-	-	-	-
					CORE NO. 58 261.00 - 263.70 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
NA	261.00	263.70	2.70	-	-	-	-	-	-	-	-	-
					CORE NO. 59 263.70 - 265.80 (CUT / RECEIVED = 2.10 / 2.10 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	263.70	265.80	2.10	-	-	-	-	-	-	-	-	-
					CORE NO. 60 265.80 - 268.50 (CUT / RECEIVED = 2.70 / 1.85 m TOTAL BOXES = 2)							
NA	265.80	267.65	1.85	-	-	-	-	-	-	-	-	-
LC	267.65	268.50	0.85	-	-	-	-	-	-	-	-	-
					CORE NO. 61 268.50 - 271.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	268.50	271.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 62 271.50 - 274.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	271.50	274.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 63 274.50 - 277.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	274.50	277.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 64 277.50 - 280.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	277.50	280.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 65 280.50 - 283.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	280.50	283.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 66 283.50 - 286.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	283.50	286.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 67 286.50 - 289.50 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	286.50	289.50	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 68 289.50 - 292.80 (CUT / RECEIVED = 3.30 / 3.30 m TOTAL BOXES = 3)							
NA	289.50	292.80	3.30	-	-	-	-	-	-	-	-	-
					CORE NO. 69 292.80 - 295.80 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	292.80	295.80	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 70 295.80 - 299.00 (CUT / RECEIVED = 3.20 / 3.20 m TOTAL BOXES = 3)							
NA	295.80	299.00	3.20	-	-	-	-	-	-	-	-	-
					CORE NO. 71 299.00 - 302.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	299.00	302.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 72 302.00 - 304.50 (CUT / RECEIVED = 2.50 / 1.50 m TOTAL BOXES = 1)							
NA	302.00	303.50	1.50	-	-	-	-	-	-	-	-	-
LC	303.50	304.50	1.00	-	-	-	-	-	-	-	-	-
					CORE NO. 73 304.50 - 307.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)							
NA	304.50	307.00	2.50	-	-	-	-	-	-	-	-	-
					CORE NO. 74 307.00 - 310.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	307.00	310.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 75 310.00 - 313.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	310.00	313.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 76 313.00 - 316.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	313.00	316.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 77 316.00 - 319.00 (CUT / RECEIVED = 3.00 / 2.80 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	316.00	318.80	2.80	-	-	-	-	-	-	-	-	-
LC	318.80	319.00	0.20	-	-	-	-	-	-	-	-	-
					CORE NO. 78 319.00 - 321.50 (CUT / RECEIVED = 2.50 / 1.70 m TOTAL BOXES = 2)							
NA	319.00	320.70	1.70	-	-	-	-	-	-	-	-	-
LC	320.70	321.50	0.80	-	-	-	-	-	-	-	-	-
					CORE NO. 79 321.50 - 324.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)							
NA	321.50	324.00	2.50	-	-	-	-	-	-	-	-	-
					CORE NO. 80 324.00 - 326.85 (CUT / RECEIVED = 2.85 / 2.85 m TOTAL BOXES = 2)							
NA	324.00	326.85	2.85	-	-	-	-	-	-	-	-	-
					CORE NO. 81 326.85 - 328.00 (CUT / RECEIVED = 1.15 / 1.15 m TOTAL BOXES = 1)							
NA	326.85	328.00	1.15	-	-	-	-	-	-	-	-	-
					CORE NO. 82 328.00 - 331.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	328.00	328.61	0.61	-	-	-	-	-	-	-	-	-
003	328.61	329.51	0.90	-	-	-	-	-	-	-	-	-

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
004	329.51	330.00	0.49	3.49	0.127	0.062	0.446	0.128	0.40	0.20	8.08	2.32
005	330.00	331.00	1.00	4.49	0.018	0.018	0.464	0.103	0.81	0.81	8.89	1.98
					CORE NO. 83 331.00 - 334.00			(CUT / RECEIVED = 3.00 / 3.00 m		TOTAL BOXES = 2)		
006	331.00	331.60	0.60	5.09	0.064	0.038	0.502	0.099	0.09	0.05	8.95	1.76
007	331.60	332.13	0.53	5.62	0.026	0.014	0.516	0.092	0.03	0.02	8.96	1.59
008	332.13	332.67	0.54	6.16	0.044	0.024	0.540	0.088	0.11	0.06	9.02	1.46
NA	332.67	333.52	0.85	-	-	-	-	-	-	-	-	-
009	333.52	334.00	0.48	6.64	0.061	0.029	0.569	0.086	3.96	1.90	10.9	1.64
					CORE NO. 84 334.00 - 336.00			(CUT / RECEIVED = 2.00 / 2.00 m		TOTAL BOXES = 2)		
010	334.00	335.64	1.64	8.28	0.057	0.093	0.662	0.080	7.57	12.4	23.3	2.82
SP011	335.64	336.00	0.36	8.64	0.047	0.017	0.679	0.079	0.01	0.00	23.3	2.70
					CORE NO. 85 336.00 - 337.50			(CUT / RECEIVED = 1.50 / 1.50 m		TOTAL BOXES = 1)		
012	336.00	336.97	0.97	9.61	0.077	0.075	0.754	0.078	18.2	17.7	41.0	4.27
NA	336.97	337.50	0.53	-	-	-	-	-	-	-	-	-
					CORE NO. 86 337.50 - 340.50			(CUT / RECEIVED = 3.00 / 2.80 m		TOTAL BOXES = 2)		
NA	337.50	339.25	1.75	-	-	-	-	-	-	-	-	-
013	339.25	340.30	1.05	10.66	0.051	0.054	0.808	0.076	0.09	0.09	41.1	3.85

* - affected by fracture or crack as mentioned in remarks

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
LC	340.30	340.50	0.20	-	-	-	-	-	-	-	-	-
					CORE NO. 87 340.50 - 343.20 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
014	340.50	341.67	1.17	11.83	0.067	0.078	0.886	0.075	5.70	6.67	47.8	4.04
015	341.67	342.08	0.41	12.24	0.087	0.036	0.922	0.075	1.91	0.78	48.5	3.97
NA	342.08	342.33	0.25	-	-	-	-	-	-	-	-	-
SP016	342.33	343.20	0.87	13.11	0.047	0.041	0.963	0.073	0.07	0.06	48.6	3.71
					CORE NO. 88 343.20 - 346.00 (CUT / RECEIVED = 2.80 / 2.30 m TOTAL BOXES = 2)							
SP017	343.20	343.93	0.73	13.84	0.114	0.083	1.046	0.076	0.27	0.20	48.8	3.53
018	343.93	344.06	0.13	13.97	0.069	0.009	1.055	0.076	4.86	0.63	49.4	3.54
SP019	344.06	344.20	0.14	14.11	0.025	0.004	1.059	0.075	0.01	0.00	49.4	3.50
SP020	344.20	344.58	0.38	14.49	0.030	0.011	1.070	0.074	0.01	0.00	49.4	3.41
021	344.58	345.50	0.92	15.41	0.101	0.093	1.163	0.075	3.25	2.99	52.4	3.40
LC	345.50	346.00	0.50	-	-	-	-	-	-	-	-	-
					CORE NO. 89 346.00 - 348.00 (CUT / RECEIVED = 2.00 / 1.90 m TOTAL BOXES = 2)							
022	346.00	347.30	1.30	16.71	0.108	0.140	1.303	0.078	14.2	18.5	70.9	4.24
023	347.30	347.50	0.20	16.91	0.046	0.009	1.312	0.078	191.	38.2	109.	6.45

* - affected by fracture or crack as mentioned in remarks

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
024	347.50	347.90	0.40	17.31	0.048	0.019	1.331	0.077	6.51	2.60	112.	6.45
LC	347.90	348.00	0.10	-	-	-	-	-	-	-	-	-
					CORE NO. 90 348.00 - 349.00 (CUT / RECEIVED = 1.00 / 0.60 m TOTAL BOXES = 1)							
SP025	348.00	348.60	0.60	17.91	0.032	0.019	1.350	0.075	0.01	0.01	112.	6.24
LC	348.60	349.00	0.40	-	-	-	-	-	-	-	-	-
					CORE NO. 91 349.00 - 349.20 (CUT / RECEIVED = 0.20 / 0.20 m TOTAL BOXES = 1)							
NA	349.00	349.20	0.20	-	-	-	-	-	-	-	-	-
					CORE NO. 92 349.20 - 350.00 (CUT / RECEIVED = 0.80 / 0.80 m TOTAL BOXES = 1)							
026	349.20	350.00	0.80	18.71	0.027	0.022	1.372	0.073	20.2	16.2	128.	6.83
					CORE NO. 93 350.00 - 352.00 (CUT / RECEIVED = 2.00 / 0.90 m TOTAL BOXES = 1)							
SP027	350.00	350.90	0.90	19.61	0.050	0.045	1.417	0.072	0.10	0.09	128.	6.52
LC	350.90	352.00	1.10	-	-	-	-	-	-	-	-	-
					CORE NO. 94 352.00 - 354.00 (CUT / RECEIVED = 2.00 / 1.60 m TOTAL BOXES = 2)							
028	352.00	352.32	0.32	-	-	-	-	-	-	-	-	-

* - affected by fracture or crack as mentioned in remarks

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
029	352.32	353.01	0.69	20.30	0.154	0.106	1.523	0.075	30.5	21.0	149.	7.34
030	353.01	353.60	0.59	-	-	-	-	-	-	-	-	-
LC	353.60	354.00	0.40	-	-	-	-	-	-	-	-	-
					CORE NO. 95 354.00 - 357.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
031	354.00	354.79	0.79	21.09	0.129	0.102	1.625	0.077	7.17	5.66	155.	7.33
SP032	354.79	354.95	0.16	21.25	0.150	0.024	1.649	0.078	1.36	0.22	155.	7.29
033	354.95	355.20	0.25	21.50	0.185	0.046	1.695	0.079	17.2	4.30	159.	7.40
034	355.20	356.64	1.44	22.94	0.160	0.230	1.925	0.084	14.6	21.0	180.	7.86
035	356.64	357.00	0.36	23.30	0.157	0.057	1.982	0.085	5.77	2.08	182.	7.82
					CORE NO. 96 357.00 - 357.70 (CUT / RECEIVED = 0.70 / 0.70 m TOTAL BOXES = 1)							
036	357.00	357.70	0.70	24.00	0.144	0.101	2.083	0.087	11.7	8.19	190.	7.94
					CORE NO. 97 357.70 - 360.00 (CUT / RECEIVED = 2.30 / 2.30 m TOTAL BOXES = 2)							
037	357.70	358.46	0.76	24.76	0.207	0.157	2.240	0.090	23.0	17.5	208.	8.40
038	358.46	359.13	0.67	25.43	0.206	0.138	2.378	0.094	630.	422.	630.	24.8
039	359.13	360.00	0.87	26.30	0.144	0.125	2.503	0.095	19.4	16.9	647.	24.6
					CORE NO. 98 360.00 - 362.10 (CUT / RECEIVED = 2.10 / 0.80 m TOTAL BOXES = 1)							

* - affected by fracture or crack as mentioned in remarks

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	360.00	360.80	0.80	-	-	-	-	-	-	-	-	-
LC	360.80	362.10	1.30	-	-	-	-	-	-	-	-	-
					CORE NO. 99 362.10 - 364.00 (CUT / RECEIVED = 1.90 / 1.90 m TOTAL BOXES = 2)							
040	362.10	362.55	0.45	26.75	0.115	0.052	2.555	0.096	42.4	19.1	666.	24.9
041	362.55	363.34	0.79	27.54	0.084	0.066	2.621	0.095	6.26	4.95	671.	24.4
042	363.34	364.00	0.66	28.20	0.197	0.130	2.751	0.098	104.	68.6	740.	26.2
					CORE NO. 100 364.00 - 364.30 (CUT / RECEIVED = 0.30 / 0.30 m TOTAL BOXES = 1)							
SP043	364.00	364.30	0.30	28.50	0.087	0.026	2.777	0.097	4.96	1.49	741.	26.0
					CORE NO. 101 364.30 - 367.00 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
044	364.30	365.03	0.73	29.23	0.068	0.050	2.827	0.097	0.14	0.10	741.	25.4
045	365.03	365.28	0.25	29.48	0.094	0.024	2.851	0.097	5.11	1.28	742.	25.2
046	365.28	365.72	0.44	29.92	0.087	0.038	2.889	0.097	0.20	0.09	743.	24.8
047	365.72	366.28	0.56	30.48	0.132	0.074	2.963	0.097	1.42	0.80	743.	24.4
048	366.28	367.00	0.72	31.20	0.085	0.061	3.024	0.097	3.14	2.26	746.	23.9
					CORE NO. 102 367.00 - 370.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
049	367.00	367.77	0.77	31.97	0.063	0.049	3.073	0.096	0.32	0.25	746.	23.3

* - affected by fracture or crack as mentioned in remarks

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
050	367.77	368.50	0.73	32.70	0.084	0.061	3.134	0.096	30.2	22.0	768.	23.5
051	368.50	369.28	0.78	33.48	0.139	0.108	3.242	0.097	6.35	4.95	773.	23.1
052	369.28	370.00	0.72	34.20	0.083	0.060	3.302	0.097	0.26	0.19	773.	22.6
					CORE NO. 103 370.00 - 371.00 (CUT / RECEIVED = 1.00 / 0.90 m TOTAL BOXES = 1)							
053	370.00	370.90	0.90	35.10	0.106	0.095	3.397	0.097	1.24	1.12	774.	22.1
LC	370.90	371.00	0.10	-	-	-	-	-	-	-	-	-
					CORE NO. 104 371.00 - 374.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
054	371.00	371.26	0.26	35.36	0.120	0.031	3.428	0.097	3.40	0.88	775.	21.9
055	371.26	371.89	0.63	35.99	0.149	0.094	3.522	0.098	9.20	5.80	781.	21.7
056	371.89	372.42	0.53	36.52	0.143	0.076	3.598	0.099	4.17	2.21	783.	21.4
057	372.42	372.77	0.35	36.87	0.135	0.047	3.645	0.099	2.70	0.95	784.	21.3
NA	372.77	373.18	0.41	-	-	-	-	-	-	-	-	-
058	373.18	374.00	0.82	37.69	0.103	0.084	3.729	0.099	3.18	2.61	787.	20.9
					CORE NO. 105 374.00 - 377.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	374.00	374.54	0.54	-	-	-	-	-	-	-	-	-
059	374.54	375.50	0.96	38.65	0.120	0.115	3.844	0.099	7.12	6.84	793.	20.5
060	375.50	376.25	0.75	39.40	0.168	0.126	3.970	0.101	9.49	7.12	801.	20.3

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
061	376.25	377.00	0.75	40.15	0.160	0.120	4.090	0.102	15.6	11.7	812.	20.2
					CORE NO. 106 377.00 - 380.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
062	377.00	377.75	0.75	40.90	0.095	0.071	4.161	0.102	1.32	0.99	813.	19.9
063	377.75	378.50	0.75	41.65	0.075	0.056	4.217	0.101	0.25	0.19	813.	19.5
064	378.50	379.25	0.75	42.40	0.059	0.044	4.261	0.100	0.06	0.05	813.	19.2
065	379.25	380.00	0.75	43.15	0.063	0.047	4.308	0.100	0.03	0.02	813.	18.9
					CORE NO. 107 380.00 - 382.00 (CUT / RECEIVED = 2.00 / 2.00 m TOTAL BOXES = 2)							
066	380.00	380.44	0.44	43.59	0.087	0.038	4.346	0.100	3.39	1.49	815.	18.7
067	380.44	382.00	1.56	45.15	0.203	0.317	4.663	0.103	12.8	20.0	835.	18.5
					CORE NO. 108 382.00 - 385.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
068	382.00	383.39	1.39	46.54	0.173	0.240	4.903	0.105	10.3	14.3	849.	18.2
069	383.39	385.00	1.61	48.15	0.138	0.222	5.125	0.106	2.35	3.78	853.	17.7
					CORE NO. 109 385.00 - 388.00 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	385.00	388.00	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 110 388.00 - 390.60 (CUT / RECEIVED = 2.60 / 2.60 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
070	388.00	390.60	2.60	50.75	0.083	0.216	5.341	0.105	0.05	0.13	853.	16.8
					CORE NO. 111 390.60 - 393.50 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)							
NA	390.60	393.50	2.90	-	-	-	-	-	-	-	-	-
					CORE NO. 112 393.50 - 396.40 (CUT / RECEIVED = 2.90 / 2.90 m TOTAL BOXES = 2)							
NA	393.50	396.40	2.90	-	-	-	-	-	-	-	-	-
					CORE NO. 113 396.40 - 399.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	396.40	399.40	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 114 399.40 - 402.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	399.40	402.40	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 115 402.40 - 405.40 (CUT / RECEIVED = 3.00 / 3.00 m TOTAL BOXES = 2)							
NA	402.40	405.40	3.00	-	-	-	-	-	-	-	-	-
					CORE NO. 116 405.40 - 407.80 (CUT / RECEIVED = 2.40 / 2.40 m TOTAL BOXES = 2)							

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
NA	405.40	407.80	2.40	-	-	-	-	-	-	-	-	-
					CORE NO. 117 407.80 - 410.10 (CUT / RECEIVED = 2.30 / 2.30 m TOTAL BOXES = 2)							
NA	407.80	410.10	2.30	-	-	-	-	-	-	-	-	-
					CORE NO. 118 410.10 - 412.80 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
NA	410.10	412.80	2.70	-	-	-	-	-	-	-	-	-
					CORE NO. 119 412.80 - 415.50 (CUT / RECEIVED = 2.70 / 2.70 m TOTAL BOXES = 2)							
NA	412.80	415.50	2.70	-	-	-	-	-	-	-	-	-
					CORE NO. 120 415.50 - 418.00 (CUT / RECEIVED = 2.50 / 2.50 m TOTAL BOXES = 2)							
NA	415.50	418.00	2.50	-	-	-	-	-	-	-	-	-
					CORE NO. 121 418.00 - 420.50 (CUT / RECEIVED = 2.50 / 2.30 m TOTAL BOXES = 2)							
NA	418.00	418.95	0.95	-	-	-	-	-	-	-	-	-
SP071	418.95	419.10	0.15	50.90	0.118	0.018	5.359	0.105	5.91	0.89	854.	16.8
NA	419.10	420.30	1.20	-	-	-	-	-	-	-	-	-

CALCULATED DATA REPORT

Sample	interval (m) Top	Base	Rep Thick (m)	Rep Cuml. (m)	Porosity	Porosity * Rep. Ø·m	Thickness Cuml.	Wt. Avg. Porosity (Arith.)	Kmax (mD)	Kmax * Rep mD·m	Thickness Cuml.	Wt.Avg Kmax (Arith.)
LC	420.30	420.50	0.20	-	-	-	-	-	-	-	-	-
					CORE NO. 122 420.50 - 422.60 (CUT / RECEIVED = 2.10 / 2.10 m TOTAL BOXES = 2)							
NA	420.50	422.60	2.10	-	-	-	-	-	-	-	-	-
					CORE NO. 123 422.60 - 425.00 (CUT / RECEIVED = 2.40 / 2.40 m TOTAL BOXES = 2)							
NA	422.60	425.00	2.40	-	-	-	-	-	-	-	-	-

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY POROSITY RANGES

Porosity Range		Samples In Range	Samples Cuml.	Metres In Range	Metres Cuml.	Wt. Avg. Porosity (Arith.)	Wt. Avg. Kmax (Arith.)	Wt. Avg. Kmax Geom	Frequency % In Rng	Frequency % Cuml.
0.001 -	0.0190	1	1	1.00	1.00	0.018	0.81	0.81	2.03	2.03
0.020 -	0.0390	4	5	1.65	2.65	0.029	0.02	0.01	3.35	5.38
0.040 -	0.0599	8	13	6.51	9.16	0.052	2.36	0.30	13.22	18.61
0.060 -	0.0799	9	22	6.35	15.51	0.068	4.33	0.76	12.90	31.51
0.080 -	0.0999	11	33	8.15	23.66	0.086	4.38	0.71	16.55	48.06
0.100 -	0.1199	8	41	7.10	30.76	0.107	6.60	2.45	14.42	62.48
0.120 -	0.1399	8	49	5.80	36.56	0.131	4.15	3.16	11.78	74.26
0.140 -	0.1599	7	56	3.94	40.50	0.148	14.3	11.1	8.00	82.27
0.160 -	0.1799	5	61	5.50	46.00	0.165	11.0	10.3	11.17	93.44
0.180 -	0.1999	2	63	0.91	46.91	0.194	80.2	63.4	1.85	95.29
0.200 -	0.2199	2	65	2.32	49.23	0.204	16.1	15.5	4.71	100.00

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

GROUPING BY PERMEABILITY RANGES

Permeability Range		Samples		Metres		Wt. Avg. Porosity	Wt. Avg. Kmax		Frequency %	
		In Range	Cuml.	In Range	Cuml.	(Arith.)	(Arith.)	Geom	In Rng	Cuml.
0.010 -	0.0190	4	4	1.48	1.48	0.034	0.01	0.01	3.01	3.01
0.020 -	0.0390	2	6	1.28	2.76	0.048	0.03	0.03	2.60	5.61
0.040 -	0.0790	3	9	4.22	6.98	0.071	0.06	0.06	8.57	14.18
0.080 -	0.1590	5	14	3.82	10.80	0.055	0.10	0.10	7.76	21.94
0.160 -	0.3190	4	18	2.64	13.44	0.090	0.25	0.25	5.36	27.30
0.320 -	0.6390	2	20	1.26	14.70	0.088	0.35	0.35	2.56	29.86
0.640 -	1.2490	3	23	3.73	18.43	0.083	0.93	0.92	7.58	37.44
1.250 -	2.4990	5	28	3.49	21.92	0.122	1.88	1.82	7.09	44.53
2.500 -	4.9990	10	38	4.95	26.87	0.100	3.52	3.47	10.05	54.58
5.000 -	9.9990	13	51	9.84	36.71	0.111	6.87	6.76	19.99	74.57
10.000 -	19.9990	9	60	9.23	45.94	0.151	14.4	14.1	18.75	93.32
20.000 -	39.9990	3	63	2.18	48.12	0.149	27.8	27.5	4.43	97.75
40.000 -	79.9990	1	64	0.45	48.57	0.115	42.4	42.4	0.91	98.66
80.000 -	159.9990	1	65	0.66	49.23	0.197	104.	104.	1.34	100.00

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

Porosity Cut off	Metres Lost	Metres Remaining	Capacity Lost Por-Metres	Capacity Lost %	Capacity Remaining Por-Metres	Capacity Remaining %	Wt. Avg. Arith. Mean	Wt. Avg. Arith. Median
-	0.00	50.90	-	0.00	5.363	100.00	0.105	
0.020	1.00	49.90	0.018	0.34	5.345	99.66	0.107	
0.040	3.45	47.45	0.087	1.63	5.275	98.37	0.111	
0.060	10.16	40.74	0.434	8.09	4.929	91.91	0.121	
0.080	16.51	34.39	0.865	16.13	4.498	83.87	0.131	
0.100	24.66	26.24	1.563	29.14	3.800	70.86	0.145	
0.120	32.98	17.92	2.471	46.07	2.892	53.93	0.161	
0.140	37.56	13.34	3.087	57.56	2.276	42.44	0.171	
0.160	43.69	7.21	4.020	74.95	1.343	25.05	0.186	
0.180	47.00	3.90	4.574	85.30	0.788	14.70	0.202	
0.200	47.91	2.99	4.751	88.59	0.612	11.41	0.205	
0.220	50.90	0.00	5.363	100.00	-	0.00	0.00	

Total Storage Capacity in Porosity-Metres = 5.363

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
FORMATION : SHELL LAKE MEMBER/KEG RIVER
WELL NAME : SUNCOR OB LEWIS
DRILLING FLUID : WATER BASE MUD

DATE : 17-Mar-2015
W/O No : RC31252

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

MILLIDARCY-METRES OF FLOW CAPACITY FOR SELECTED PERMEABILITY CUT OFF

Permeability Cut off	Metres Lost	Metres Remaining	Capacity Lost mD-m	Capacity Lost %	Capacity Remaining mD-m	Capacity Remaining %	Wt. Avg. Arith. Mean	Wt. Avg. Arith. Median
0.000	0.00	49.23	0.000	0.00	377.604	100.00	0.000	
0.010	1.48	47.75	0.015	0.00	377.589	100.00	0.015	
0.020	1.48	47.75	0.015	0.00	377.589	100.00	0.030	
0.040	2.76	46.47	0.053	0.01	377.551	99.99	0.083	
0.080	6.98	42.25	0.289	0.08	377.315	99.92	0.372	
0.160	10.80	38.43	0.689	0.18	376.915	99.82	1.061	
0.320	14.21	35.02	1.595	0.42	376.009	99.58	2.657	
0.640	14.70	34.53	1.791	0.47	375.813	99.53	4.448	
1.250	18.43	30.80	5.273	1.40	372.331	98.60	9.721	
2.500	21.92	27.31	11.842	3.14	365.762	96.86	21.563	
5.000	26.87	22.36	29.252	7.75	348.352	92.25	50.815	
10.000	36.71	12.52	96.822	25.64	280.782	74.36	147.637	
20.000	45.94	3.29	229.313	60.73	148.291	39.27	376.950	
40.000	48.12	1.11	289.884	76.77	87.720	23.23	666.835	
80.000	48.57	0.66	308.964	81.82	68.640	18.18	975.799	
160.000	49.23	0.00	377.604	100.00	0.000	0.00	1353.403	

Total Flow Capacity in MilliDarcy-Metres (Arithmetic) = 377.604

SUMMARY OF CORE DATA REPORT

PERMEABILITY RANGES, MILLIDARCY

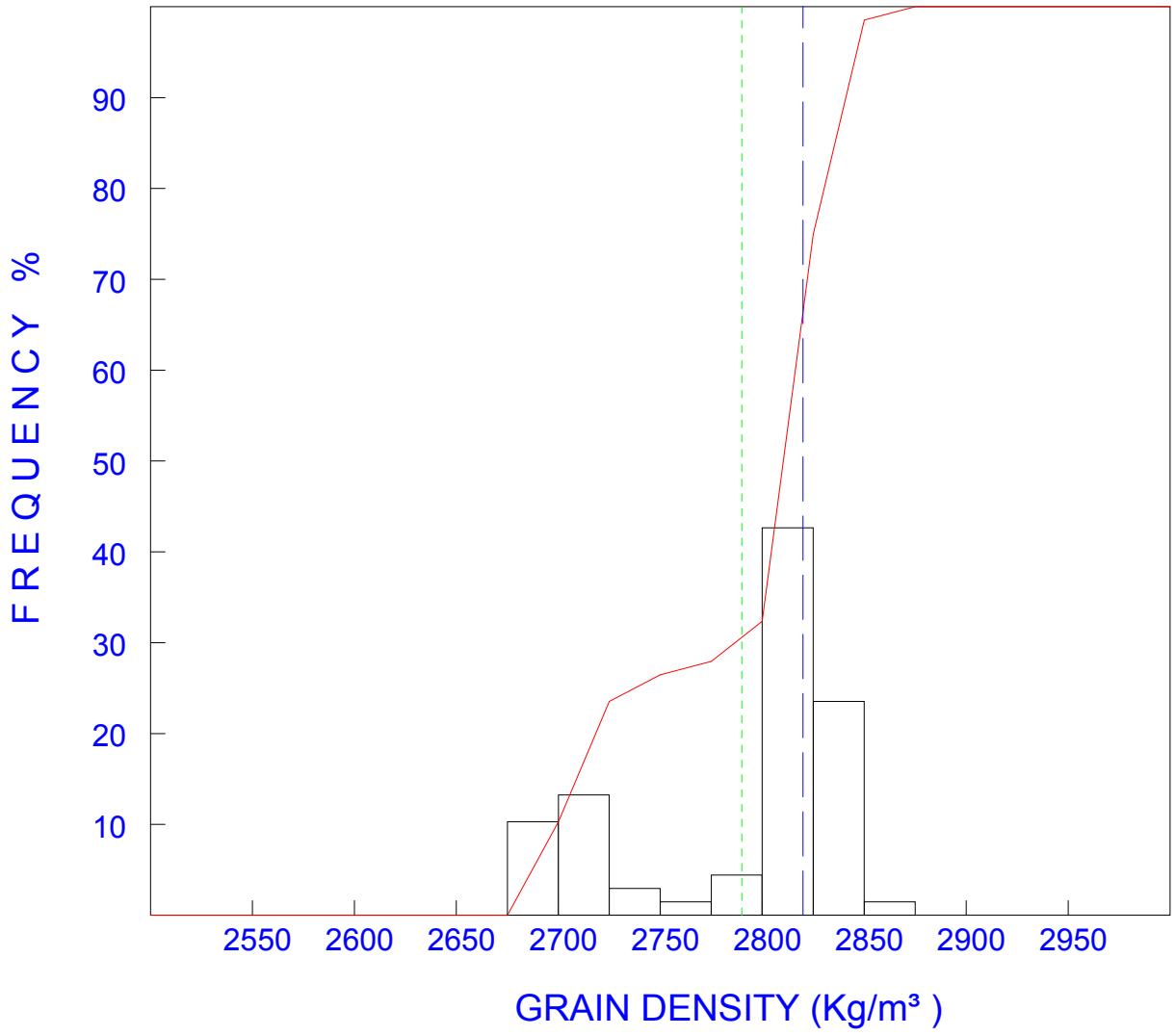
	Total	100.00 +	10.00 - 99.99	1.00 - 9.99	0.50 - 0.99	0.10 - 0.49	0.01 - 0.09	< 0.01
Thickness (m)	49.23	0.66	11.86	19.18	2.83	6.07	8.63	0.00
Fraction of Analyzed Core		0.013	0.241	0.390	0.057	0.123	0.175	0.000
Porosity Thickness (por-m)	5.194	0.130	1.772	2.107	0.214	0.467	0.505	0.000
Permeability Thickness (mD-m)	377.6	68.64	212.14	92.67	2.37	1.35	0.44	0.00
Wt. Average Porosity	0.106	0.197	0.149	0.110	0.076	0.077	0.059	0.000
Wt. Average Permeability	7.67	104.00	17.89	4.83	0.84	0.22	0.05	0.00
Wt. Average Residual Oil	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Wt. Average Residual Water	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Wt. Average (geom.) Kmax. mD for all Samples = 1.69
Wt. Average (harm.) Kmax. mD for all Samples = 0.15

Company : SUNCOR ENERGY INC.
Location : 100/11-27-092-08W4M/0
Well Name : SUNCOR OB LEWIS
Interval : 183.50-425.00m
Formation : SHELL LAKE MEMBER/KEG RIVER

FIGURE : 1
Date : 17-Mar-2015
AGAT Job : RC31252

GRAIN DENSITY DISTRIBUTION



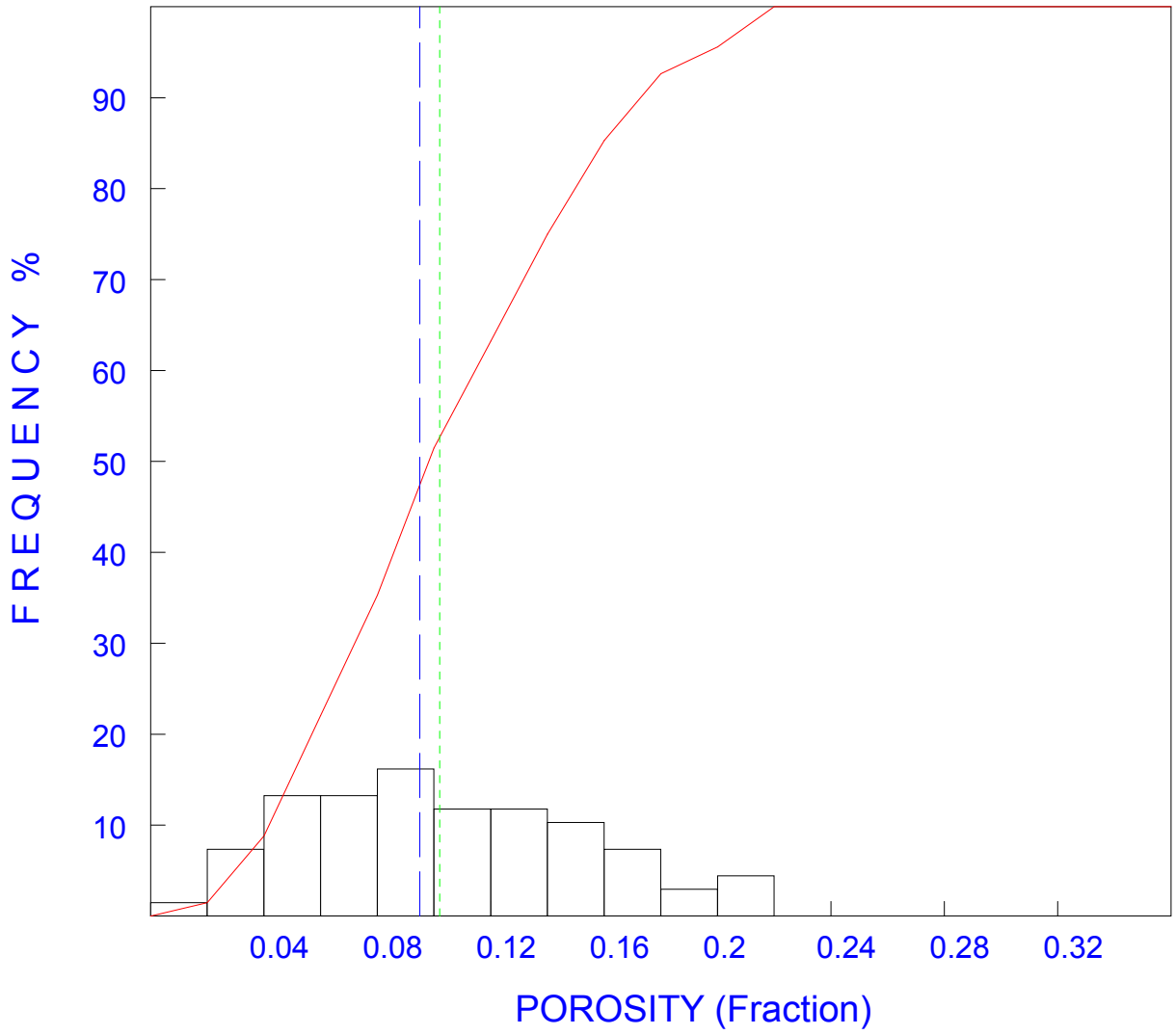
Arithmetic Mean	.....	Mean: 2790
Median	- - - - - - -	Median: 2820
Cum. Frequency %	_____	

AGAT® Laboratories

Company : SUNCOR ENERGY INC.
Location : 100/11-27-092-08W4M/0
Well Name : SUNCOR OB LEWIS
Interval : 183.50-425.00m
Formation : SHELL LAKE MEMBER/KEG RIVER

FIGURE : 2
Date : 17-Mar-2015
AGAT Job : RC31252

POROSITY DISTRIBUTION



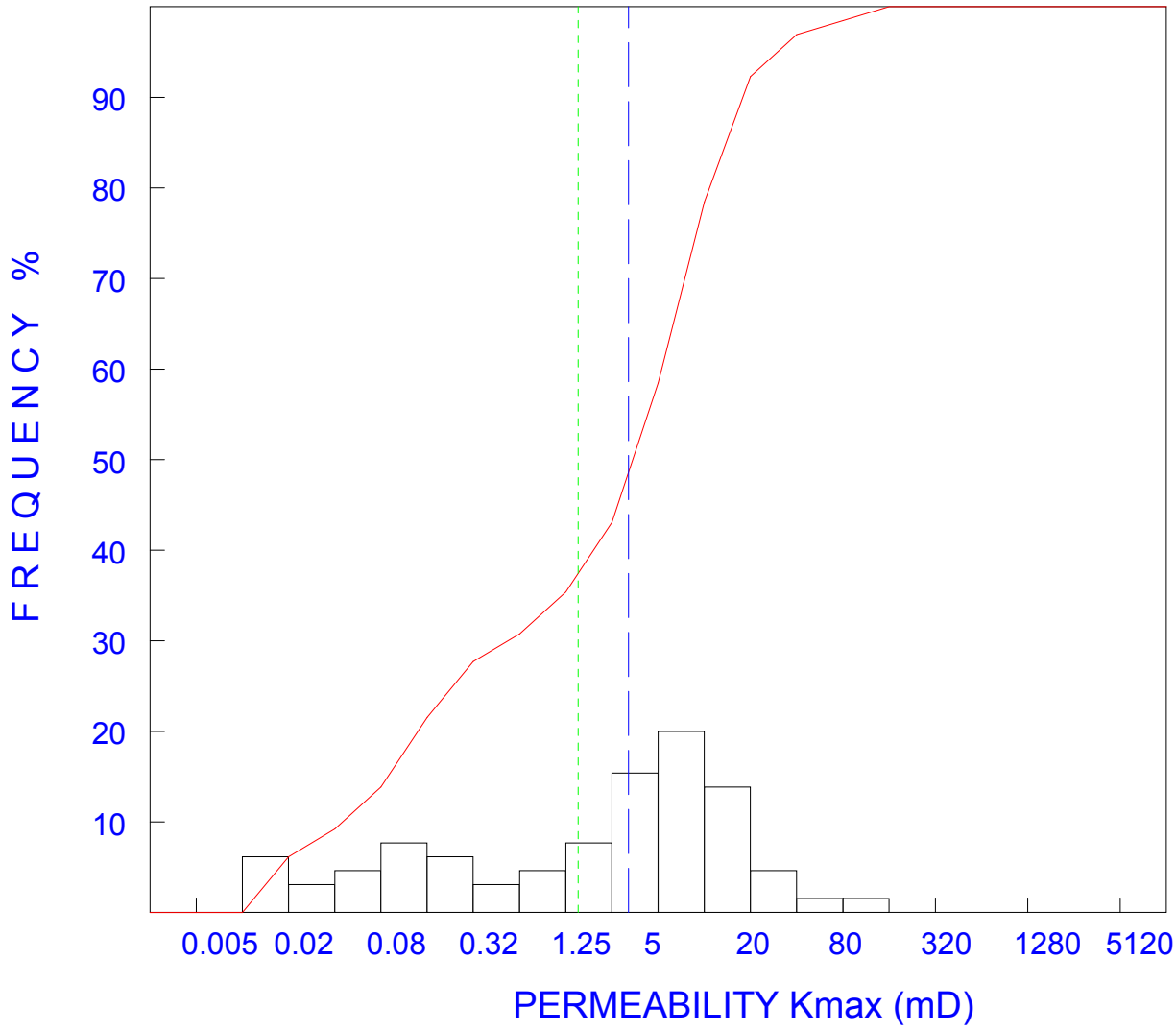
Arithmetic Mean	.....	Mean: 0.102
Median	- - - - - - -	Median: 0.095
Cum. Frequency %	_____	

AGAT® Laboratories

Company : SUNCOR ENERGY INC.
Location : 100/11-27-092-08W4M/0
Well Name : SUNCOR OB LEWIS
Interval : 183.50-425.00m
Formation : SHELL LAKE MEMBER/KEG RIVER

FIGURE : 3
Date : 17-Mar-2015
AGAT Job : RC31252

PERMEABILITY Kmax DISTRIBUTION



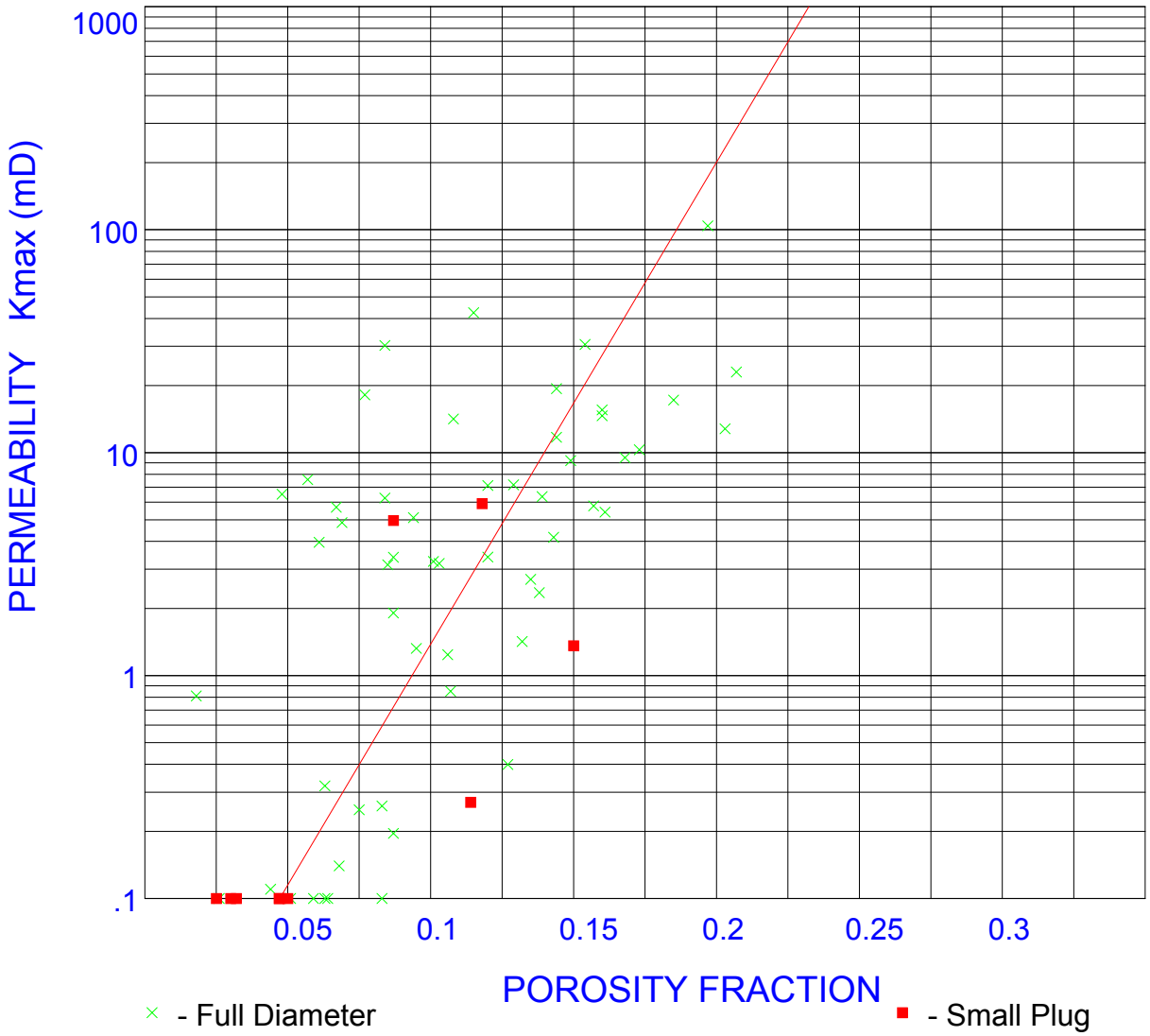
Arithmetic Mean	.....	Mean: 1.57
Median	- - - - - - -	Median: 3.39
Cum. Frequency %	_____	

AGAT® Laboratories

Company : SUNCOR ENERGY INC.
Location : 100/11-27-092-08W4M/0
Well Name : SUNCOR OB LEWIS
Interval : 183.50-425.00m
Formation : SHELL LAKE MEMBER/KEG RIVER

FIGURE : 4
Date : 17-Mar-2015
AGAT Job : RC31252

POROSITY-PERMEABILITY CORRELATION



Equation of Line : Log (Kmax) = -2.02 + 21.61* Porosity
Correlation Coefficient r = 0.7

AGAT® Laboratories

SAMPLE HANDLING

AGAT LABORATORIES CORE SERVICES

SAMPLE HANDLING AND ANALYSIS INFORMATION

Company : SUNCOR ENERGY INC.
Well : SUNCOR OB LEWIS
Location : 100/11-27-092-08W4M/0

Coring Equipment : Diamond
Coring Fluid : Water Base Mud
Core Diameter : 0.07m
Total Cored : 241.50m
Total Recovered : 234.15m

W/O Number : RC31252
Date : 17-Mar-15

HANDLING

Core Transported in : Tubes/Frozen
Cutting Solution : Brine
Cleaning Solvent : Toluene
Extraction : Vapour phase
Cleaning time : 888 hours
Drying Equipment : Convection Oven
Drying Time/Temp : 48 hours @ 108°C

ANALYSIS

Grain volume measured by Boyle's Law using helium
Bulk volume measured by calipering on right-cylindrical samples
Permeability measured on 0.09m full diameter samples
Permeability measured on 38.1mm diameter drilled plugs
Full diameter core sandblasted Kh measurements

REMARKS

Two (2) sets color photos of whole core (CN30-70/CN115-123)
Two (2) sets color photos of slabbed core (CN71-114)
Report/photo images on two (2) CD's

AGAT® Laboratories

ABBREVIATIONS

COMMON ABBREVIATIONS

abnt	Abundant
abv	Abbreviations
Alg	Algae (al)
alt	Altered (ing)
amor	Amorphous
Amph	Amphipora
ang	Angular
anhy	Anhydrite (ic)
app	Appear
apr	Apparent
aprox	Approximate (ly)
arg	Argillaceous
ark	Arkose (ic)
asph	Asphalt (ic)
AST	Assigned similar to (no actual sample taken)
apha	Aphanitic
bcm	Become (ing)
bd	Bed
bdd	Bedded
bdg	Bedding
Belm	Belemnites
bent	Bentonite (ic)
bf	Buff
biocl	Bioclastic
bioturb	Bioturbated
bit	Bitumen (inous)
bl	Blue (ish)
blk	Black
blky	Blocky
bnd	Band (ed)
Brac	Brachiopod
brec	Breccia (ted)
bri	Bright
brit	Brittle
brn	Brown
Bry	Bryozoa
Bulb	Bulbous
bur	Burrowed
c	Coarse (ly)
calc	Calcite (areous)
carb	Carbonaceous
cbl	Cobble (64-256 mm)
Ceph	Cephalopod
cgl	Conglomerate
chk	Chalk (y)
chlor	Chlorite
cht	Chert
chty	Cherty
cl	Clastic
cln	Clean
clr	Clear
cly	Clay (ey)
com	Common
coq	Coquina
Cor	Coral
crbnt	Carbonate
Crin	Crinoid (al)
crm	Cream
crpxl	Cryptocrystalline
ctc	Contact
deb	Debris
decr	Decrease (ing)
desi	Desiccation
dism	Disseminated
dk	Dark (er)
dns	Dense (er)
dol	Dolomite (ic)
drsy	Drusy
dtrl	Detrital (us)
elg	Elongate
euhed	Euhedral
f	Fine (ly)
fau	Fauna
Fe	Iron-Ferruginous
Fe-mag	Feromagnesian
fenst	Fenestral
fis	Fissile
fl	Fill (ed)
fld	Feldspar (thic)
flk	Flake
flky	Flaky
flor	Fluorescence
flt	Fault (ed)
fltg	Floating
foram	Foraminifera
fos	Fossil (iferous)
fr	Fair
frac	Fracture (ed)
frag	Fragment (al)
fri	Friable
frmwk	Framework
fros	Frosted
g	Good
Gast	Gastropod
gl	Glass (y)
glau	Glauconite (ic)
gn	Green
gr	Grain (ed)
gran	Granular
grd	Grade (ed)
grnl	Granule (2-4 mm)
gy	Grey
gyp	Gypsum (iferous)

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COMMON ABBREVIATIONS (CONTINUED)

hal	Halite
hd	Hard
hfrac	Horizontal Fracture
hi	High
hrtl	Horizontal
hvy	Heavy
hydc	Hydrocarbon
ig	Igneous
imbed	Imbedded
imp	Impression
incl	Included (sion)
incr	Increase
indst	Indistinct
intbd	Interbedded
intcl	Intraclast (s)
intfrag	Interfragmental
intgran	Intergranular
intlam	Interlaminated
intr	Intrusion (ive)
intv	Interval
intxl	Intercrystalline
ireg	Irregular
ird	Iridescent
intrsk	Intraskeletal
kao	Kaolin
lam	Laminated
lchd	Leached
len	Lentil (cular)
lith	Lithographic
lmy	Limy
lrg	Large (er)
ls	Limestone
lse	Loose
lstr	Lustre
lt	Light (er)
m	Medium
mar	Maroon
mas	Massive
mat	Material, matter
mica	Mica (ceous)
mic	Micro
mky	Milky
mnr	Minor
mnrl	Mineral (ized)
mnut	Minute
Mol	Mollusca
mot	Mottled
mrly	Marly
mtx	Matrix
n	No,none,non
nod	Nodule
num	Numerous
o	Oil
occ	Occasional
od	Odor
ool	Oolite (ic)
op	Opaque
org	Organic
orng	Orange
orth	Orthoclase
Ost	Ostracod
ovgth	Overgrowth
ox	Oxidized
p	Preliminary (as suffix)
pbl	Pebble (4-64 mm)
pel	Pellet
perm	permeability
pet	Petroleum (iferous)
phos	Phosphate (ic)
pk	Pink
plag	Plagioclase
plcy	Pelecypod
pl	Plant
plty	Platy
por	Porous (sity)
pos	Possible (ility)
p-p	Pin-Point
pred	Predominant (ly)
prim	Primary
prob	Probable (ly)
prom	Prominent (ly)
pt	Part (ly)
ptch	Patch (es)
ptg	Parting
purp	Purple
pyr	Pyrite (ic) (ized)
pyrbit	Pyrobitumen
qtz	Quartz
qtzc	Quartzitic
qtzs	Quartzose
rd	Round (ed)
repl	Replaced (ing) (ment)
rexl	Recrystallized
rmn	Remains (nant)
rr	Rare
rsns	Resinous
rthy	Earthy
s	Small
sa	Salt (y)
S	Sulphur
s&p	Salt & Pepper
sat	Saturated
sb	Sub

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COMMON ABBREVIATIONS (CONTINUED)

sc	Scales
scat	Scattered
sd	Sand (1/16 - 2mm)
sdy	Sandy
sec	Secondary
sed	Sediment (ary)
sft	Soft
sh	Shale
shad	Shadow
shy	Shaly
sid	Siderite (ic)
sil	Silica
sks	Slickensided
sl	Slight (ly)
sln	Solution
slt	Silt
sltst	Siltstone
slty	Silty
sm	Smooth
SP	Small Plug (as prefix)
sp	Spot (ted) (ty)
spec	Speck (led)
spl	Sample
srt	Sort (ed) (ing)
strg	Stringer
Strom	Stromatoporoid
stromlt	Stromatolite
struc	Structure
styl	Stylolite (ic)
suc	Sucrosic
sug	Sugary
sup	Supported
surf	Surface
sz	Size

tab	Tabular
tex	Texture
Tham	Thamnopora
thk	Thick
thn	Thin
thru	Throughout
tr	Trace
trnsl	Translucent
trnsp	Transparent
tt	Tight
tub	Tubular
uncons	Unconsolidated
unident	Unidentifiable
up	Upper
v	Very
var	Variable
vcol	Varicolored
vfrac	Vertical Fracture
vgt	Varigated
vn	Vein
vrtl	Vertical
vug	Vug (gy) (ular)
w	Well
wh	White
wk	Weak
wthrd	Weathered
wtr	Water
wvy	Wavy
wxy	Waxy
wsrt	Well sorted

xbd	Cross-bedded
xbdg	Cross-bedding
xl	Crystal (line)
xlam	Cross-laminated
yel	Yellow
zn	Zone
*	Broken core
/	With
>10000	Permeability over 10000 mD
<0.01	Permeability less than 0.01 mD
CC	Cracked Core
DR	Drilled
LC	Lost Core
RU	Rubble
mD	milliDarcy

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CORE LOGS

COMPANY : SUNCOR ENERGY INC.
LOCATION : 100/11-27-092-08W4M/0
WELL : SUNCOR OB LEWIS
FORMATION : SHELL LAKE MEMBER/KEG RIVER
FIELD :
JOB : RC31252
DEPTH SCALE 1 : 240

RECOVERY : 234.15m
CORED INTERVAL : 183.50-425.00m
DRLG. FLD. : WATER BASE MUD
ELEVATION : KB:
GRD :
DATE : 17-Mar-2015

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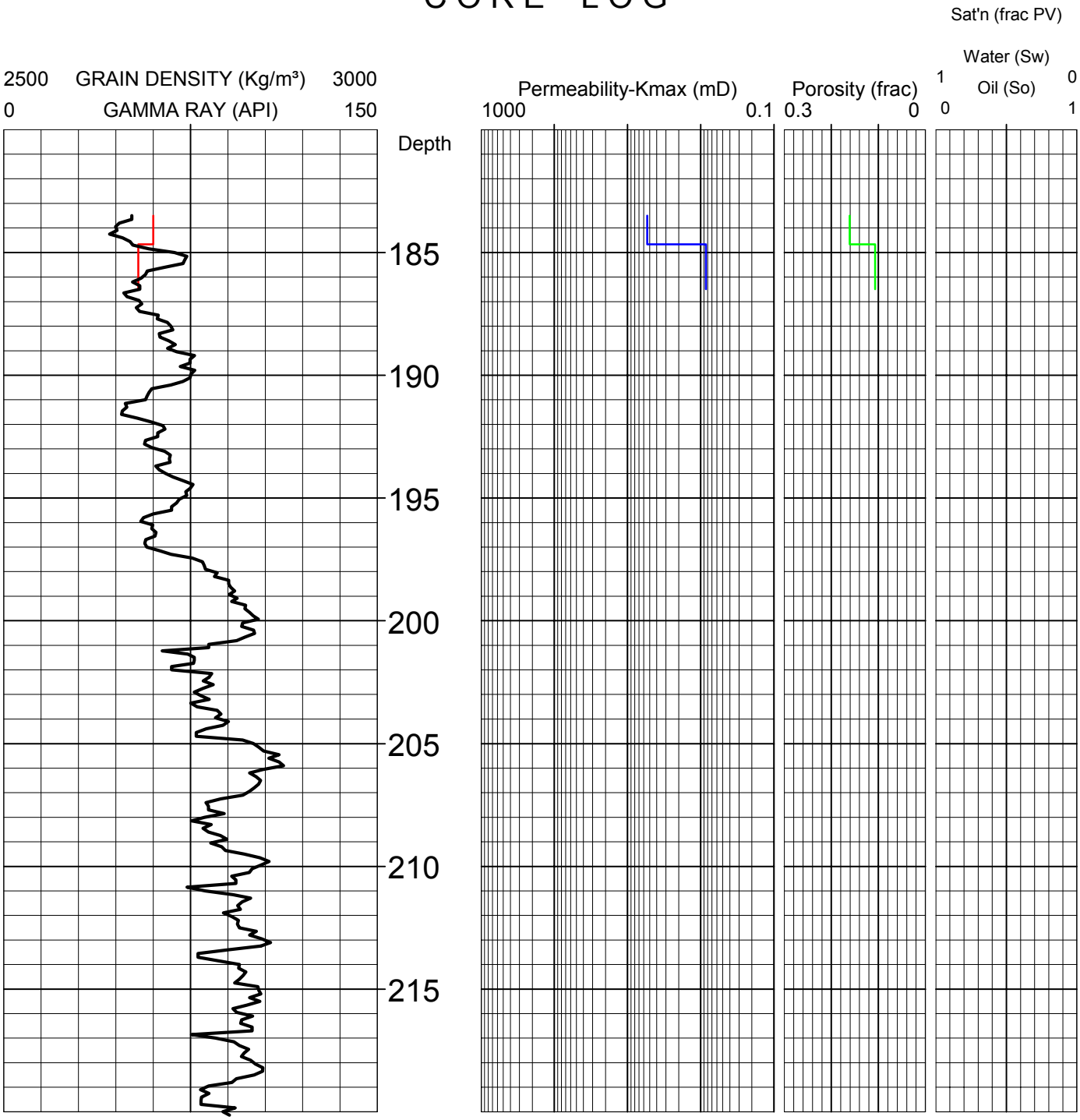
C O R E L O G



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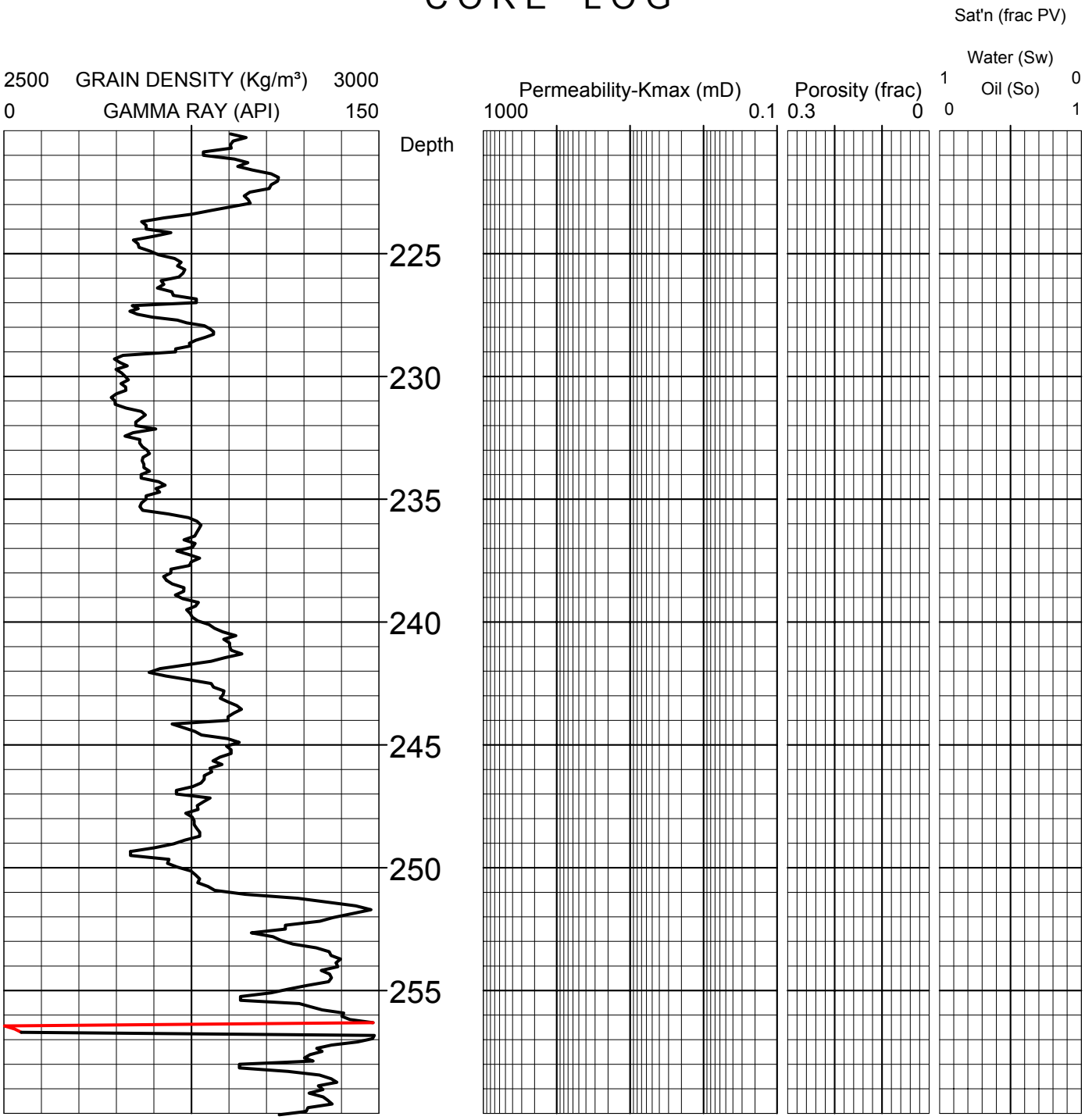

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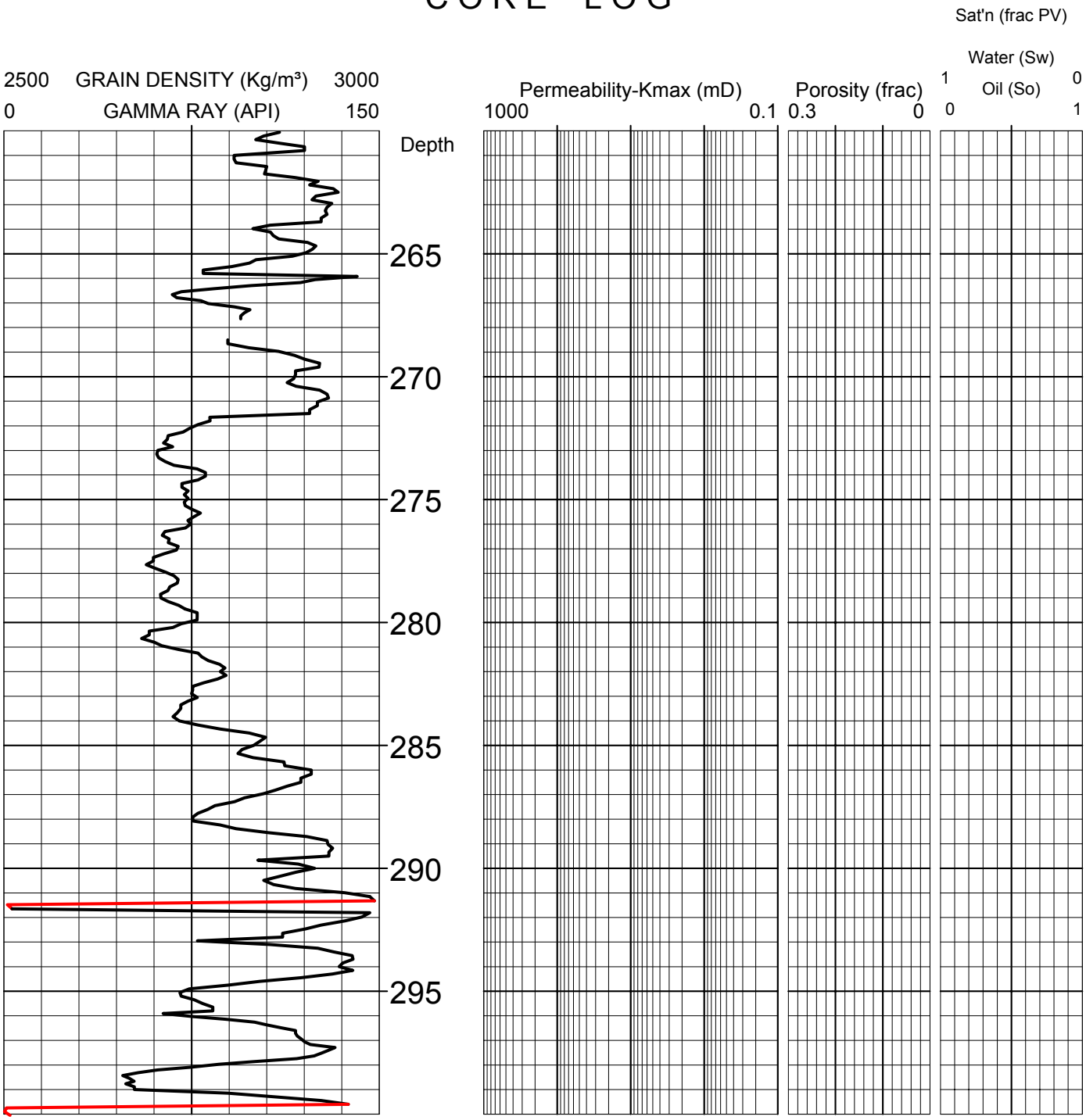

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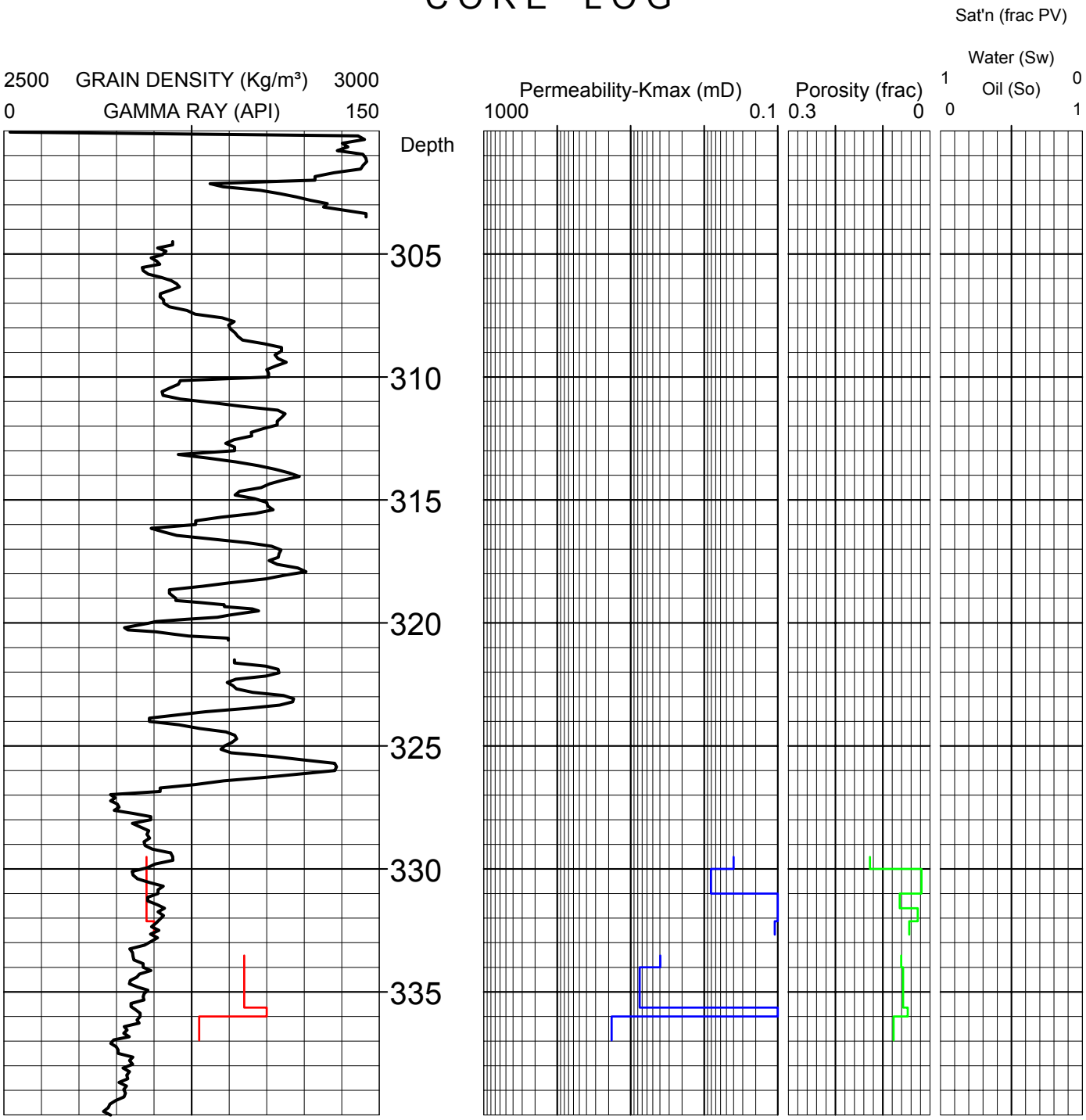

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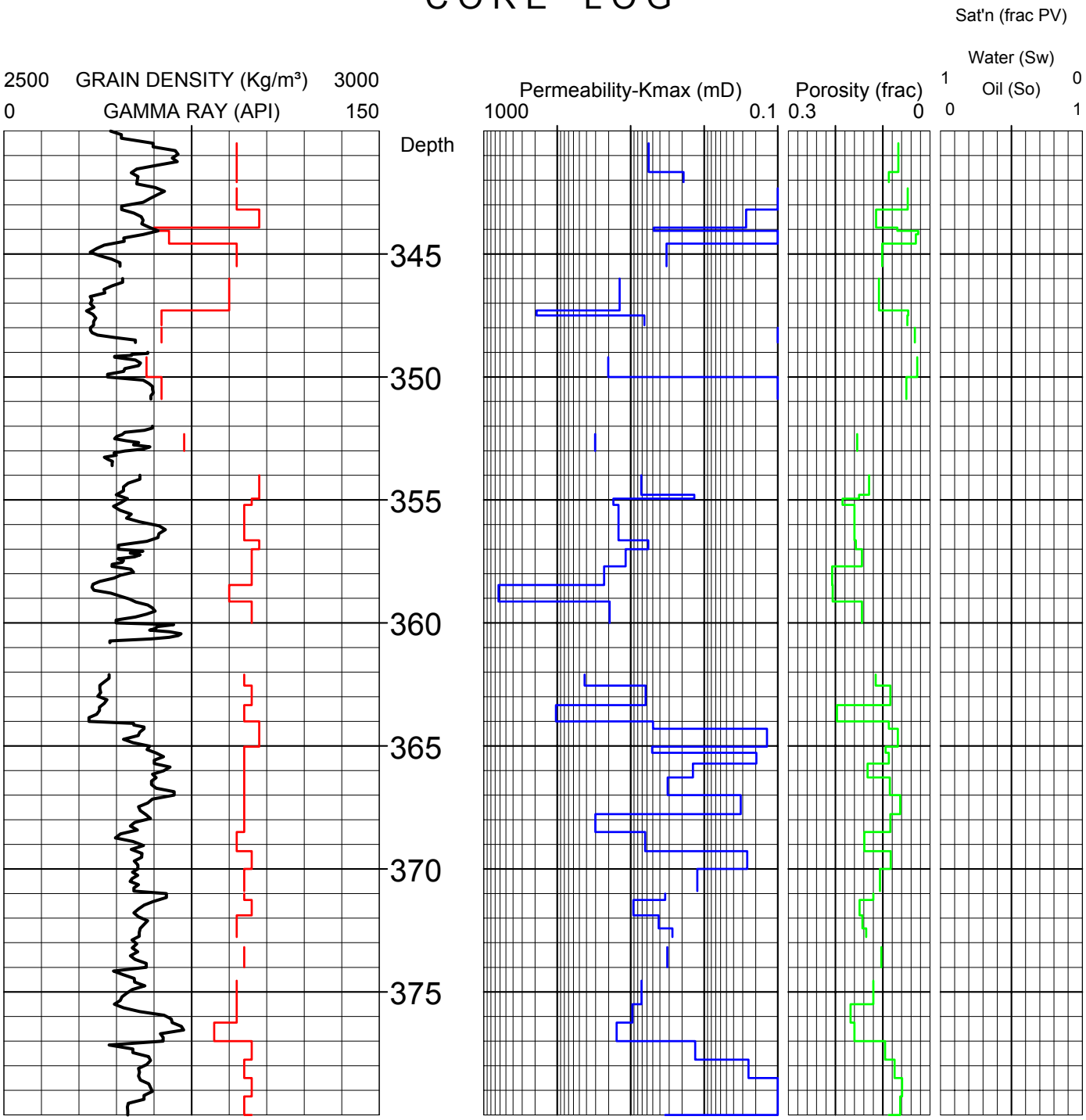

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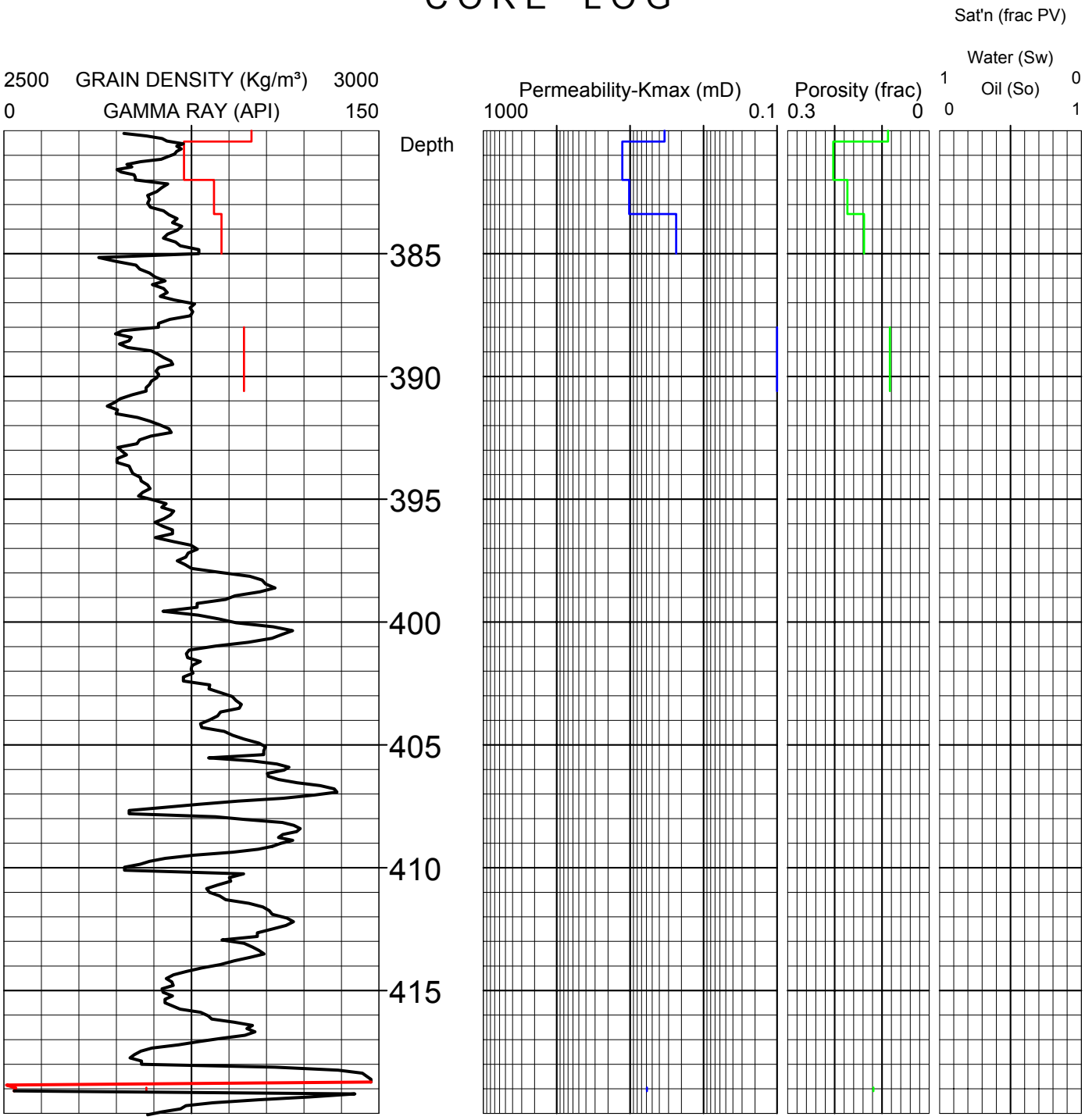

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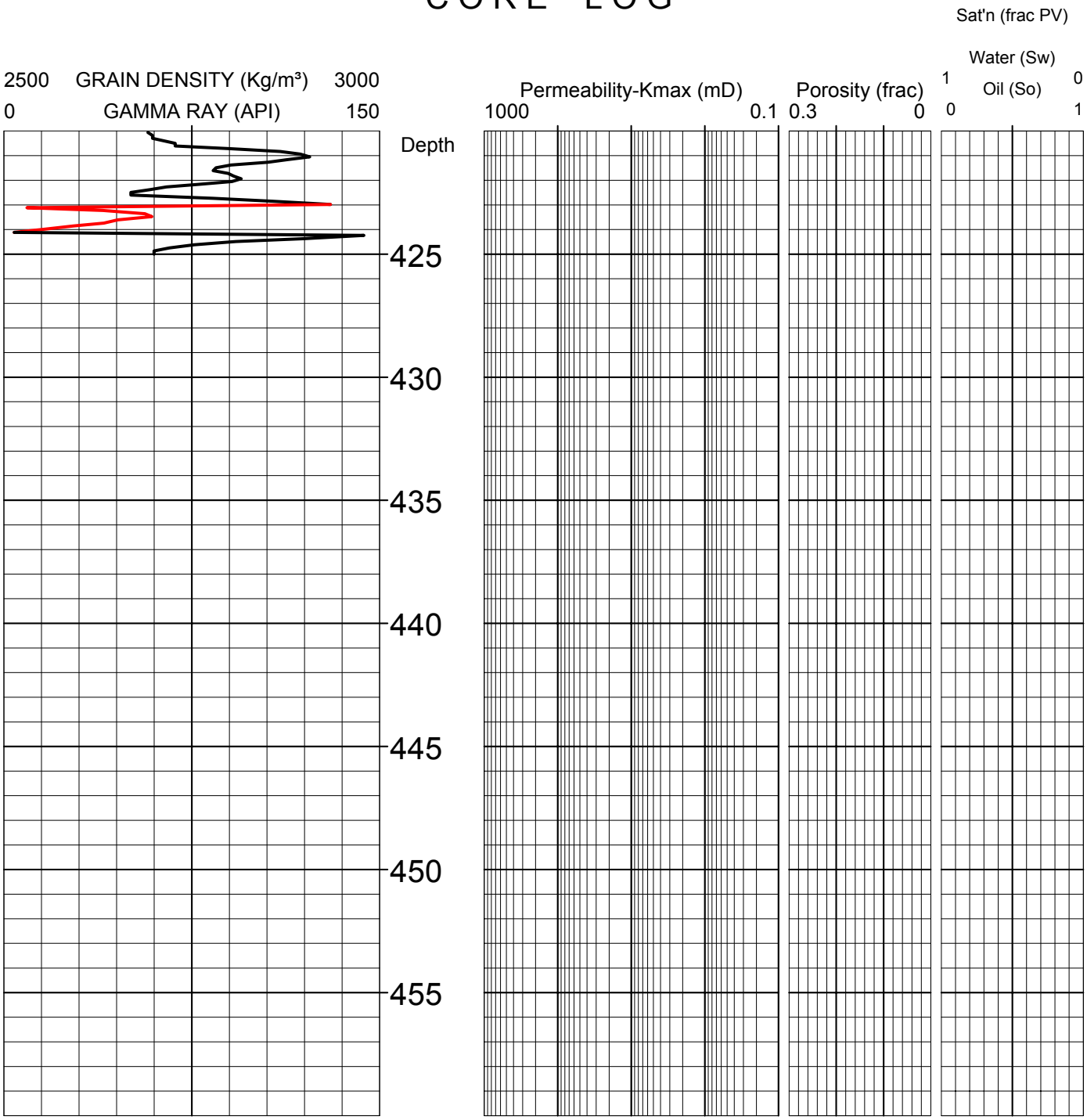

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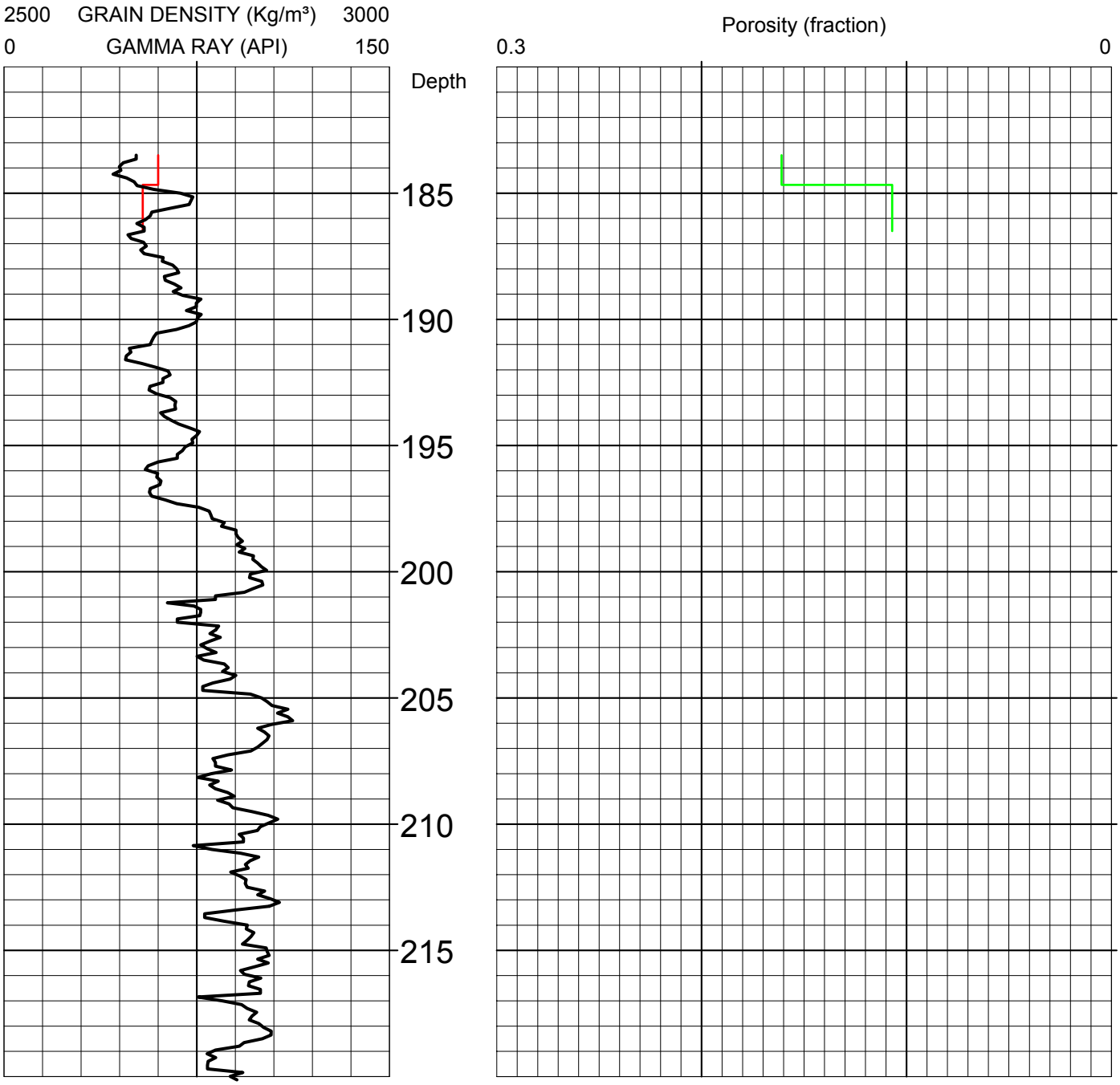

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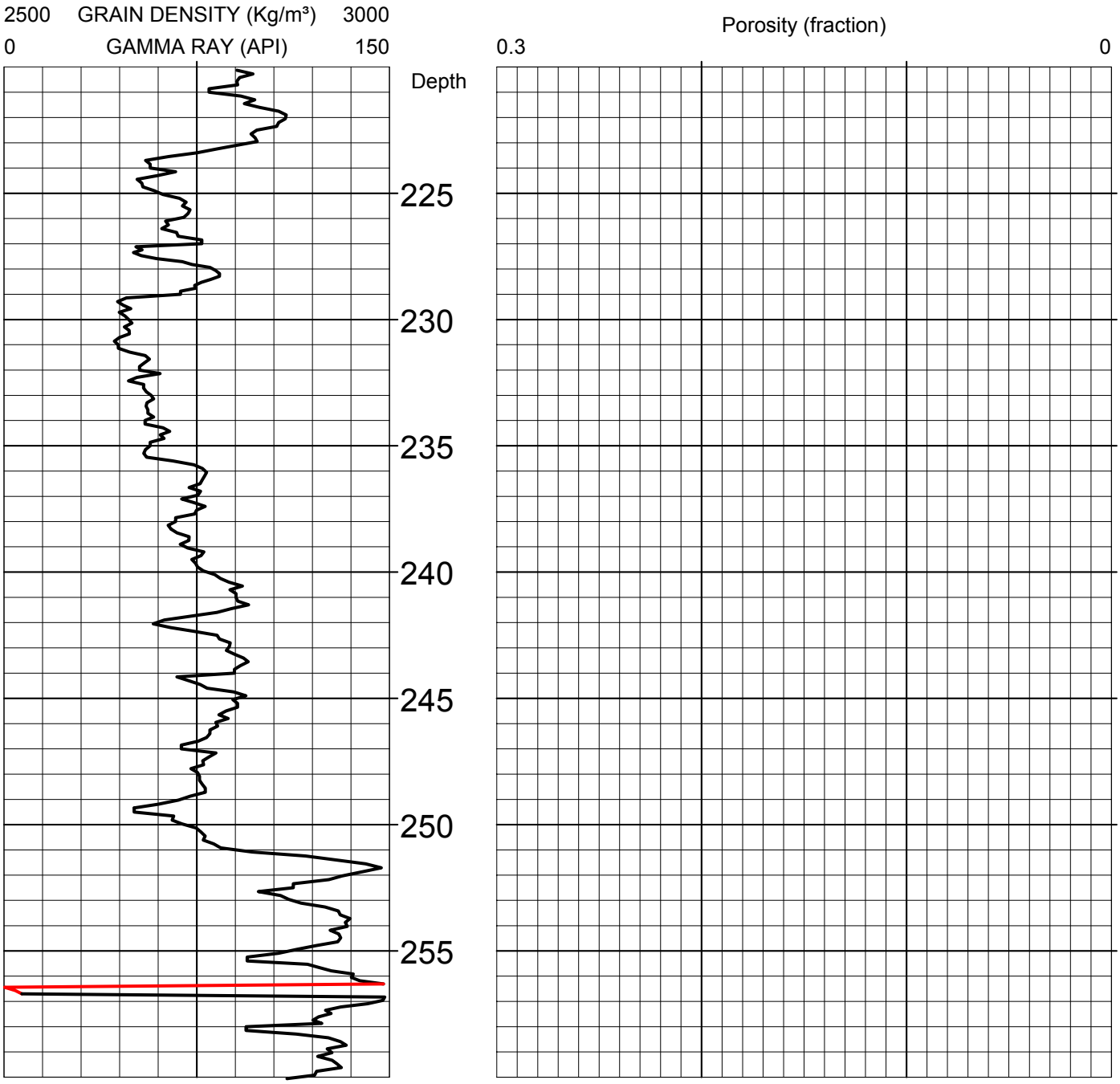

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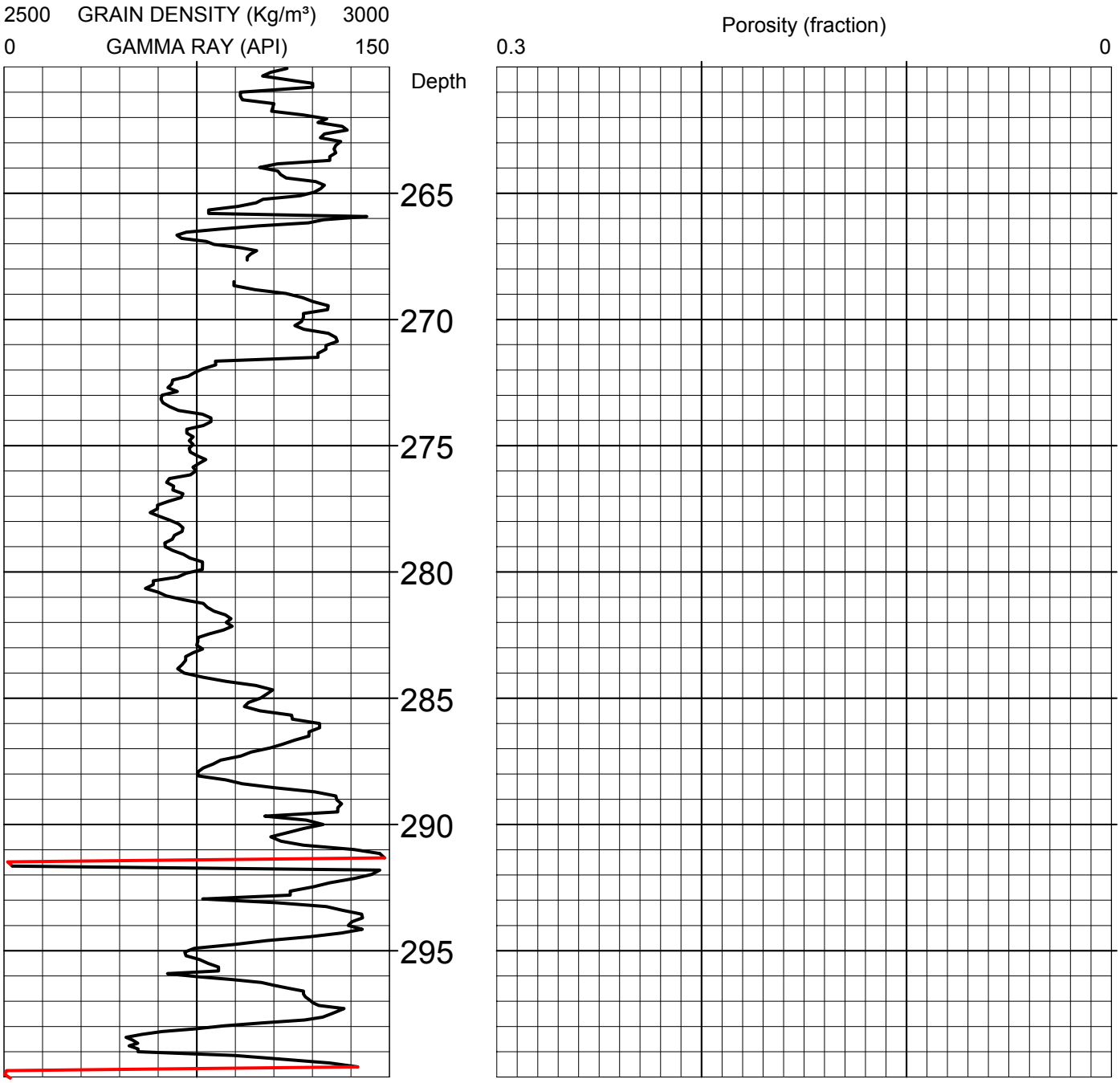

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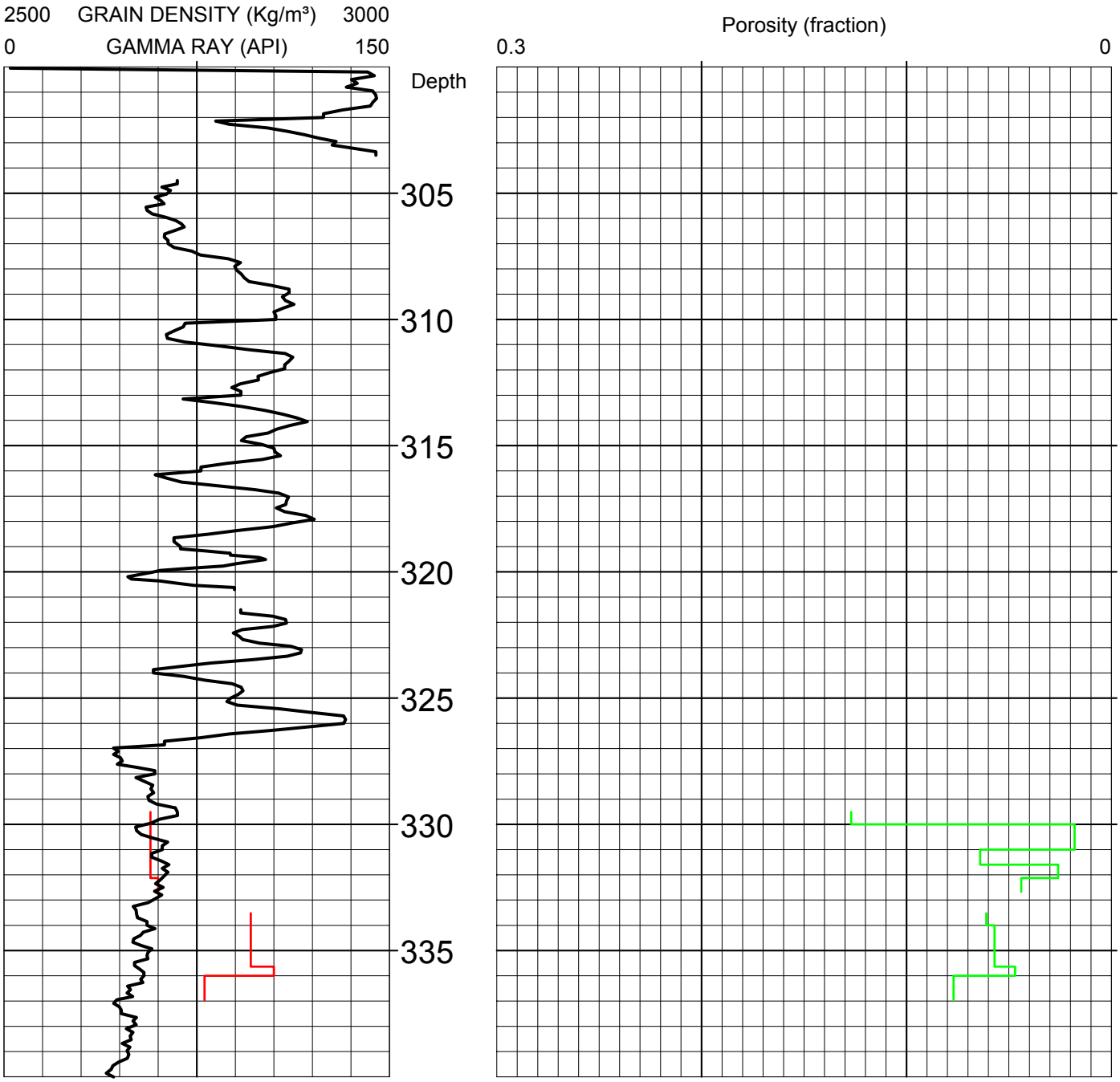

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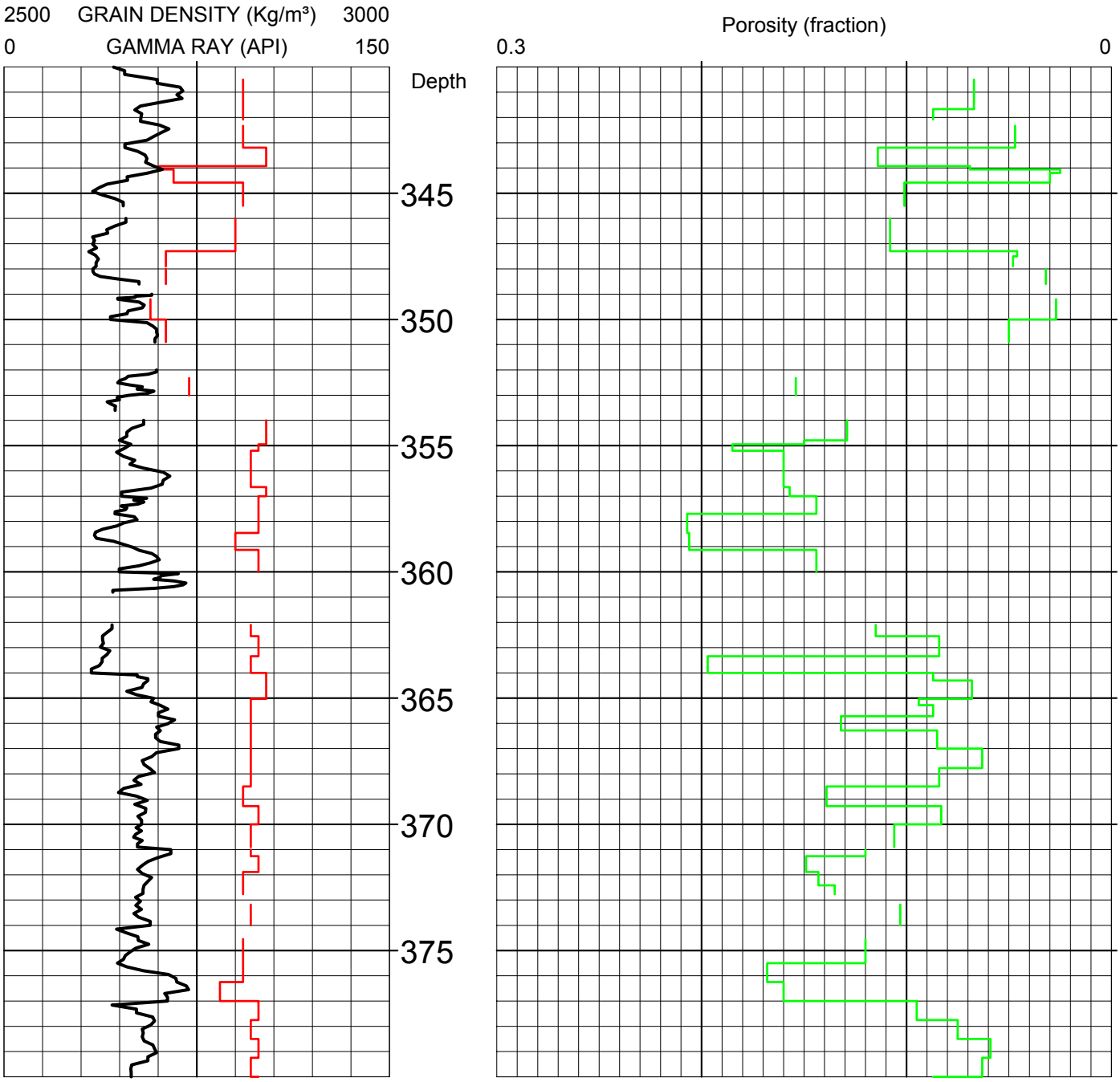

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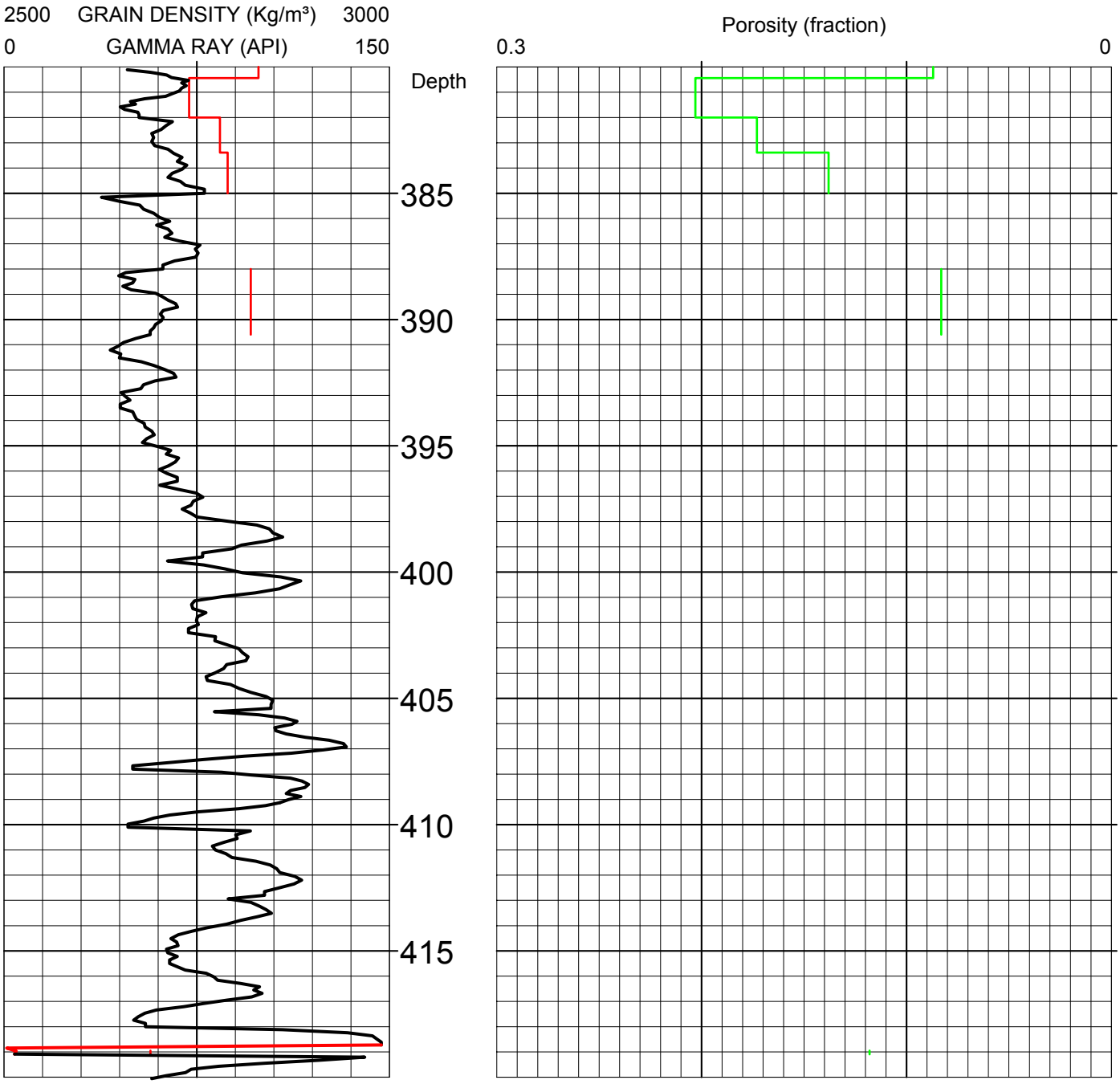

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