

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PETROLEUM GEO-SERVICES INC.
and
ION GEOPHYSICAL CORPORATION
AND ION INTERNATIONAL S.A.R.L.
Petitioners

v.

WESTERNGECO, LLC
Patent Owner

Case IPR2014-00688¹

U.S. Patent No. 7,080,607

PETITIONER'S UPDATED EXHIBIT LIST

¹ Case IPR2015-00567 has been joined with this proceeding.

‘607 APPENDIX OF EXHIBITS (IPR2014-00688)

Exhibit No.	Description
PGS 1001	U.S. Patent No. 7,080,607 B2 (‘Hillesund)
PGS 1002	Declaration of Dr. Brian J. Evans, Ph.D.
PGS 1003	Declaration of Dr. Jack H. Cole, Ph.D.
PGS 1004	U. S. Patent No. 5,790,472 (Workman)
PGS 1005	U. S. Patent No. 5,532,975 (Elholm)
PGS 1006	Gikas, V. <i>et al.</i> , The Hydrographic Journal. 77; pp. 11-24 (1995)
PGS 1007	U. S. Patent No. 3,581,273 (Hedberg)
PGS 1008	U. S. Patent No. 3,605,674 (Weese)
PGS 1009	U. S. Patent No. 4,809,005 (Counselman)
PGS 1010	U. S. Patent No. 4,404,664 (Zachariadis)
PGS 1011	U. S. Patent No. 4,033,278 (Waters)
PGS 1012	U. S. Patent No. 3,412,704 (Buller)
PGS 1013	PCT Application No. WO 98/28636 (‘636 Application)
PGS 1014	R. P. Loweth, Manual of Offshore Surveying for Geoscientists and Engineers (1st ed. 1997)
PGS 1015	‘607 Patent file history, Office Action Dated November 21, 2005
PGS 1016	‘607 Patent file history, Notice of Allowability Dated May 17, 2006
PGS 1017	Trial Transcript Vol. 17 (pp. 5186-88) in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, dated August 15, 2012
PGS 1018	WesternGeco’s Opposition to ION’s Renewed Motion for Judgment as a Matter of Law and Alternative Motion for New Trial Regarding Non-Infringement in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 569, dated October 26, 2012
PGS 1019	WesternGeco’s Opposition to Defendants’ Motion for Summary Judgment of Invalidity of the Bittleston Patents in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 287, dated April 20, 2012
PGS 1020	Trial Transcript Vol. 5 (pp. 1276, 1279, 1283, 1345-46, 1350-52) in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 449, dated July 27, 2012
PGS 1021	Jury Verdict in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 536, dated August 16, 2012
PGS 1022	Memorandum and Order in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 634, dated June 19, 2013
PGS 1023	ION’s Rule 59 Motion for New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 in re: <i>WesternGeco L.L.C. v. ION Geophysical</i>

	<i>Corporation</i> , Civil Action No. 4:09-CV-01827, DE 550, dated September 28, 2012
PGS 1024	Memorandum and Order in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> in re: Civil Action No. 4:09-CV-01827, DE 120, dated July 16, 2010
PGS 1025	WesternGeco's Opening Claim Construction Brief in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> , Civil Action No. 4:09-CV-01827, DE 61, dated February 10, 2010
PGS 1026	Hearing Transcript (pp. 14-16, 45, 64) in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> Civil Action No. 4:09-CV-01827 Hearing, DE 109, dated May 14, 2010
PGS 1027	WesternGeco's Opposition to ION's Motion for a New Trial on Invalidity Under 35 U.S.C. §§ 102 and 103 in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> Civil Action No.4:09-CV-01827, DE 574, dated October 26, 2012
PGS 1028	WesternGeco's Reply Claim Construction Brief in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> Civil Action No. 4:09-CV-01827, DE 77, dated March 12, 2010
PGS 1029	U.S. Patent No. 5,353,223 (Norton)
PGS 1030	Trial Transcript Vol. 2; pp. 509, 578 in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> Civil Action No. 4:09-CV-01827, DE 443, dated July 24, 2012
PGS 1031	Trial Transcript Vol. 1; pp. 142, 145-146 in re: <i>WesternGeco L.L.C. v. ION Geophysical Corporation</i> Civil Action No. 4:09-CV-01827, DE 429, dated July 23, 2012
PGS 1032	U. S. Patent No. 5,200,930 (Rouquette)
PGS 1033	'017 Patent File History, Applicant Response to Office Action Dated October 16, 2003
PGS 1034	U. S. Patent No. 4,992,990 (Langeland)
PGS 1035	Richard C. Dorf and Robert H. Bishop, <i>Modern Control Systems</i> (8th ed. 1998)
PGS 1036	Gregory E. Upchurch., <i>Intellectual Property Litigation Guide: § 155 Overview – Effective filing date</i> , 2 IP Litigation Guide: Patents & Trade Secrets
PGS 1037	Stuart Bennett, <i>A Brief History of Automatic Control</i> , 17-25 (1996)
PGS 1038	Karl J. Åström and Björn Wittenmark, <i>Computer-Controlled Systems: Theory and Design</i> (3rd ed. 1997)
PGS 1039	Karl J. Åström and Björn Wittenmark, <i>Computer-Controlled Systems: Theory and Design</i> (1984)
PGS 1040	U.S. Patent No. 6,011,753 (Chien)
PGS 1041	Vassilis N. Gikas, <i>Least Squares Filtering and Testing for Positioning and Quality Control During 3D Marine Seismic Surveys</i> , Full Thesis, dated August 1996
PGS 1042	U. S. Patent No. 6,011,752 (Ambs)
PGS 1043	Evans, <i>A Handbook for Seismic Data Acquisition in Exploration</i> (David V. Fitterman & William H. Dragoset, Jr. eds., 1977)

PGS 1044	E. J. W. Jones, <i>Marine Geophysics</i> (1999)
PGS 1045	W. R. Cotton and J. J. Sanders, <i>The Reality of Trace Binning in 3-D Marine Surveying</i> (1983)
PGS 1046	Biondo L. Biondi, 3D Seismic Imaging, 123-24 (2006)
PGS 1047	Christopher L. Liner, <i>Elements of 3-D Seismology</i> (1999)
PGS 1048	Gerald H.F. Gardner & Anat Canning, <i>Effects of irregular sampling on 3-D prestack migration</i> (SEG Abstracts, 1994).
PGS 1049	Ralph Gobeli and Christopher Liner, Bin Size and Linear v(z) (Society of Exploration Geophysics Technical Program Expanded Abstracts (1996).
PGS 1050	WO 96/21163
PGS 1051	D.L. McKeown, <i>Acoustic Positioning of Oceanographic Instruments</i> , IEEE – Engineering in the Ocean Environment Conference. Vol. 2; pp. 150-54 (1974)
PGS 1052	Peter S. Maybeck, <i>Why Stochastic Models, Estimation and Control</i> , Vol:1; pp. 1-16 (1979)
PGS 1053	U. S. Patent No. 6,932,017 (the '017 Patent)
PGS 1054	'607 Patent file history, Terminal Disclaimer Dated February 21, 2006
PGS 1055	Ted L. Amrine et al., <i>Investigation of Interactions Between Cable Leveling and Heading Measurement</i> , SEG Expanded Abstracts, 640-642 (1989)
PGS 1056	U. S. Patent No. 4,890,568 (Dolengowski)
PGS 1057	Shashank Upadhye., <i>Generic Pharmaceutical Patent and FDA Law § 171 Section 119 Claiming foreign priority – Section 102(b)</i>
PGS 1058	Transcript of Joinder Board Call of March 25, 2015
PGS 1059	Declaration of David J. Healey in Support of ION Geophysical Corp. and ION International S.A.R.L.'s Motion for <i>Pro Hac Vice</i> Admission
PGS 1060	<i>Exhibit Number Not Used</i>
PGS 1061	<i>Exhibit Number Not Used</i>
PGS 1062	<i>Exhibit Number Not Used</i>
PGS 1063	<i>Exhibit Number Not Used</i>
PGS 1064	<i>Exhibit Number Not Used</i>
PGS 1065	Email to Charles Carvill from Robin Walker (Exhibit Not Filed)
PGS 1066	Drawing by Robin Walker (Exhibit Not Filed)
PGS 1067	Drawing by Robin Walker (Exhibit Not Filed)
PGS 1068	N6 Answer Product Workshop OTC dated March 8, 2006 (Exhibit Not Filed)
PGS 1069	Excerpt of Exhibit 2131, a spreadsheet titled H12305-0007-075305 (Exhibit Not Filed)
PGS 1070	Curriculum vitae of Robin Walker (Exhibit Not Filed)
PGS 1071	Brice et al., <i>Perturbations in 4D marine seismic</i> (ASEG 15th Geophysical Conf. & Exhibition 2001) (Exhibit Not Filed)
PGS 1072	Martin et al., <i>Acquisition of marine point receiver seismic data with a towed streamer</i> (SEG Expanded Abstracts, 2000) (Exhibit Not Filed)
PGS 1073	McBarnet, <i>Moving up the Q</i> , <i>Offshore Engineer</i> (June 2008) (Exhibit

	Not Filed)
PGS 1074	Deposition Transcript of Robin Walker in re: <i>WesternGeco L.L.C. v. Ion Geophysical Corporation</i> , Civil Action No. 4:09-cv-01827, dated September 13, 2011 (Exhibit Not Filed)