# COMPLEX LITIGATION E-DISCOVERY FORUM

## <u>DISCUSSION SESSION #3:</u>

## *NEGOTIATING A STATE OF THE ART ESI PROTOCOL*

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For this discussion, we will use the attached model ESI Protocol to discuss the pros, cons, and strategic considerations relating to the inclusion of certain provisions in an ESI Protocol.

**UNITED STATES DISTRICT COURT**
**DISTRICT OF NOWHERE**

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| **IN RE: CLASS ACTION**<br><br>**ALL ACTIONS**<br><br>---<br><br>This Document Relates to: All Civil Actions | Case No. 2:16-md-0001<br>(MDL 0001)<br><br><br>**STIPULATION REGARDING PRODUCTION OF ELECTRONICALLY STORED INFORMATION AND PAPER DOCUMENTS** |

This Stipulation Regarding Production Of Electronically Stored Information And Paper Documents ("ESI Protocol") shall govern the parties in the above-captioned case and all actions that are later consolidated with that case (collectively, the "Litigation").

## I. GENERAL PROVISIONS

A. **Applicability:** This Stipulation and Order will govern the production of computer generated information or data of any kind, stored in or on any storage media located on computers, file servers, disks, tape or other real or virtualized devices or media ("ESI") and the production of paper documents.

B. **Cooperation:** The parties shall cooperate to identify and facilitate access to the contents of encrypted, password-protected, corrupted or difficult-to-access files produced. The parties will work cooperatively to fashion reasonable, precise and cost-effective search strategies and to agree upon and implement appropriate measures for quality assurance and quality control. Parties are obliged to be forthcoming and transparent in disclosing their use of mechanized tools to cull responsive data and encouraged to bring technically-adept personnel together to resolve e-discovery issues.

C. **ESI Liaisons**

1. Each party agrees to designate an ESI Liaison within 7 days after entry of this Stipulation and Order. Any party is free to change their designated ESI Liaison by providing written notice to the other parties.

2. **Duties of ESI Liaison:** Each ESI Liaison will be prepared to participate in the resolution of ESI discovery issues; familiar with the party's electronic systems and capabilities in order to explain these systems and answer relevant questions; knowledgeable about the technical aspects of e-discovery, including electronic document storage, organization, and format issues; prepared to participate in e-discovery dispute resolutions; know the party's ESI discovery efforts; and have access to those who are familiar with the party's electronic systems and capabilities in order to, as appropriate, answer relevant questions.

3. **Time Frame for ESI Issue Resolution:** Each ESI Liaison agrees to acknowledge receipt of an ESI-related inquiry from another ESI Liaison regarding an ESI issue within 24 hours and respond substantively with 48 hours. If the responding ESI Liaison believes the ESI issue in question is particularly complex and requires more

than 48 hours to respond substantively, then within 48 hours the responding ESI Liaison will provide a detailed explanation of the process necessary to answer the question and provide an estimated response date.

D.  **Production Media & Protocol:**  The production media for document productions that do not exceed 5 GB shall be secure FTP link provided via email at the time a production letter is emailed, unless the parties agree otherwise.  On the occasions when a particular document production exceeds 5 GB, the production media may be a CD-ROM, DVD, external hard drive (with standard PC compatible interface), or USB drive, so long as such production media is sent no slower than overnight delivery via FedEx, UPS, or USPS.  Each item of production media (or in the case of FTP productions, each production transmittal letter) shall include: (1) text referencing that it was produced in *In re Class Action*, (2) the type of materials on the media (e.g., "Documents," "OCR Text," "Objective Coding," etc.), (3) the production date, (4) the Bates number range of the materials contained on such production media item, and (5) a short description of the categories of information in the production (e.g., Custodian X's email, centralized purchasing files, etc.).  The ESI Liaisons shall designate the appropriate physical address for productions exceeding 5 GB that are produced on physical media.

E.  **Definitions**

1.  **"Custodial ESI":** The phrase Custodial ESI refers to ESI associated with a particular individual, such as email authored or received by a Document Custodian, on a Document Custodian's cell phone.

2.  **"Documents"** includes writings, drawings, graphs, charts, photographs, sound recordings, images, and other data, data records or data compilations — stored in any medium from which information can be obtained.

3.  **"Electronically stored information"** or **"ESI,"** as used herein, means and refers to computer generated information or data of any kind, stored in or on any storage media located on computers, file servers, disks, tape or other real or virtualized devices or media. Non limiting examples of ESI include:

    - *Digital communications (e.g., e-mail, voice mail, text messaging, instant messaging, and ephemeral messaging (SnapChat, etc.));*

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- *E-Mail Server Stores (e.g., Lotus Domino .NSF or Microsoft Exchange .EDB)*
- *Word processed documents (e.g., Word or WordPerfect files and drafts);*
- *Spreadsheets and tables (e.g., Excel or Lotus 123 worksheets);*
- *Accounting Application Data (e.g., QuickBooks, Money, Peachtree data);*
- *Image and Facsimile Files (e.g., .PDF, .TIFF, .JPG, .GIF images);*
- *Sound Recordings (e.g., .WAV and .MP3 files);*
- *Video and Animation (e.g., .AVI and .MOV files);*
- *Databases (e.g., Access, Oracle, SQL Server data, SAP);*
- *Contact and Relationship Management Data (e.g., Outlook, ACT!);*
- *Calendar and Diary Application Data (e.g., Outlook PST, blog entries);*
- *Online Access Data (e.g., Temporary Internet Files, History, Cookies);*
- *Presentations (e.g., PowerPoint, Corel Presentations)*
- *Network Access and Server Activity Logs;*
- *Project Management Application Data;*
- *Computer Aided Design/Drawing Files;*
- *Backup and Archival Files (e.g., Veritas, Zip, .GHO); and*
- *Cloud based or other virtualized ESI, including application, infrastructure and data.*

4. **"Metadata"** means and refers to information about information or data about data, and includes without limitation (i) information embedded in or associated with a native file that is not ordinarily viewable or printable from the application that generated, edited, or modified such native file which describes the characteristics, origins, usage and/or validity of the electronic file and/or (ii) information generated automatically by the operation of a computer or other information technology system when a native file is created, modified, transmitted, deleted or otherwise manipulated by a user of such system.

5. **"Static Image"** means or refers to a representation of ESI produced by converting a native file into a standard image format capable of being viewed and printed on standard computer systems.

## II.    RULE 26(a) ESI DISCLOSURES

Within seven (7) days of the date the Court enters this Order, pursuant to Federal Rule of Civil Procedure 26(a) Defendants shall disclose the following information:

A.    **Custodians:** The ten custodians most likely to have discoverable ESI in their possession, custody, or control (hereinafter, "Priority Document Custodians"). The Priority Document Custodians shall be identified by name, title, connection to the instant litigation, and the type of information under his/her control. The Priority Document Custodians must include each Defendant's CEO. As discovery is only beginning, Plaintiffs do not agree that ten total custodians is an appropriate number and believe a larger number is very likely necessary in this matter, and therefore Plaintiffs expressly reserve the right to request inclusion of additional custodians as discovery progresses. The use of ten Priority Document Custodians is intended to streamline discovery and produce information from Document Custodians most likely to have relevant information initially, with additional Document Custodians added as documents are produced to Plaintiffs that permit an examination of additional individuals likely to possess relevant information.

B.    **Non-custodial Data Sources:** A list of known non-custodial data sources (e.g. shared drives, servers, etc.), if any, likely to contain discoverable ESI. As part of their non-custodial data sources Rule 26(a) disclosures, Defendants will identify the databases that contain "structured data" commonly required in antitrust cases, including pricing, capacity, input cost, travel & expense data, and customer lists, including producing any readily available user manuals, training manuals, or explanations of the type of data contained in such structured databases.

C.    **Third-Party Data Sources:** A list of known third-party data sources, if any, likely to contain discoverable ESI and, for each such source, the extent to which a party is (or is not) able to preserve information stored in the third-party data source.

D.    **Employee Technology Use Policies:** Each Defendant will produce a copy of their policy (or policies) in effect from 2000 to the present concerning use by employees of phones, notebook computers, and tablets for business purposes. Such policies may go by the following names: bring-your-own

device (BYOD) policies, choose-your-own-device (CYOD) policies, corporate-liable-employee-owned (CLEO) policies, corporate-owned/personally enabled (COPE) policies, mobile-device-management (MDM) policies, and dual-use device policies.  If no such policy existed for a particular time period or the entire time period, then the Defendant will notify Plaintiffs of that fact in writing.

E. **Preservation of Phone Records & Cell Phones:**  Defendants will disclose what steps they have taken to internally preserve phone records and cell phone data for the Priority Document Custodians.  With respect to phone records, Defendants will disclose whether notification has been provided to the phone carrier(s) for Priority Document Custodians' work phone numbers (office and fax number(s)) and cell phone numbers used from 2000 to the present and/or whether any available internally maintained phone record logs or phone bills have been preserved.  Defendants will also disclose if they have preserved and/or collected data on the Priority Document Custodians' cell phones used from 2000 to the present.

F. **Inaccessible Data:** A list of known data sources, if any, likely to contain discoverable ESI (by type, custodian, electronic system or other criteria sufficient to specifically identify the data source) that a party asserts is not reasonably accessible under Fed. R. Civ. P. 26(b)(2)(C)(i). Inaccessible data source likely to contain discoverable ESI shall be preserved until the parties reach an agreement on these sources.

III. <u>**GENERAL PRODUCTION FORMAT PROTOCOLS**</u>

A. **TIFFs:**  All production images will be provided as single page Group IV TIFFs of at least 300 dpi resolution.  Page size shall be 8.5 x 11 inches unless in the reasonable judgment of the producing party, a particular item requires a different page size.  Each image will use the Bates number of the first page of the document as its unique file name. Original document orientation should be maintained (i.e., portrait to portrait and landscape to landscape).  Hidden content, tracked changes or edits, comments, notes and other similar information viewable within the native file shall also be imaged so that this information captured on the produced image file.

B. **Text Files:**  Each paper document or ESI item produced under this order shall be accompanied by a text file as set out below.  All text files shall be provided as a single document level text file for each item, not one text file per page.  Each text file shall be named to use the Bates number of the first page of the corresponding production item.

1. **OCR:** Paper documents will be accompanied by an OCR file.  The parties will endeavor to generate accurate OCR and will utilize quality OCR processes and technology.  The parties acknowledge, however, that due to poor quality of the originals, not all documents lend themselves to the generation of accurate OCR.  OCR text files should indicate page breaks where possible.

2. **ESI:** Emails and efiles will be accompanied by extracted text taken from the ESI item itself.

C. **Bates Numbering**

1. All images must be assigned a Bates number that must always: (1) be unique across the entire document production; (2) maintain a constant length (0- padded) across the entire production; (3) contain no special characters or embedded spaces; and (4) be sequential within a given document.

2. If a Bates number or set of Bates numbers is skipped in a production, the producing party will so note in a cover letter or production log accompanying the production.

3. The producing party will brand all TIFF images in the lower right-hand corner with its corresponding bates number, using a consistent font type and size.  The Bates number must not obscure any part of the underlying image.  If the placement in the lower right-hand corner will result in obscuring the underlying image, the Bates number should be placed as near to that position as possible while preserving the underlying image.

D. **Parent-Child Relationships:**  Parent-child relationships (the association between an attachment and its parent document) that have been maintained in the ordinary course of business should be preserved.  For example, if a party is producing a hard copy printout of an e-mail with its attachments, the attachments should be processed in order behind the e-mail.

E. **Load Files:**  All production items will be provided with a delimited data file or "load file."  Acceptable formats for the load file are .log, .opt, .dii .lfp, .txt, .dat, or .csv, as detailed in Appendix 1.  Each party will designate its preferred load file format.  The load file must reference each TIFF in the corresponding production.  The total number of documents referenced in a production's data load file should match the total number of designated document breaks in the Image Load files in the production.  Each

deliverable volume should limit directory contents to approximately 1000 files per folder.

F. **Color:** Documents or ESI containing color need not be produced initially in color. However, if an original document or ESI item contains color markings and it is necessary to see those markings in their original color to understand the meaning or content of the document, then the receiving party may, in good faith, request that the document or ESI item be produced in its original colors, and such a request will not be unreasonably denied by the producing party. The production of documents and/or ESI in color shall be made in TIFF format or in an alternative format, such as single page JPEG format, that provides sufficient quality for the review of these documents and/or ESI. All requirements for productions stated in this Stipulation and Order regarding productions in TIFF format would apply to any productions of documents and/or ESI in color made in such an alternative format.

G. **De-duplication:**
   1. If a producing party elects to de-duplicate horizontally, all custodians who were in possession of a de-duplicated document must be identified in the CustodianOther metadata field specified in Appendix 2. Additionally, all BCC recipients whose names would have been included in the BCC metadata field but are excluded because of horizontal/global de-duplication, must be identified in the BCC metadata field specified in Appendix 2. In the event of rolling productions of documents or ESI items, the producing party will supplement the load files with updated CustodianOther and BCC information as needed.
   2. Duplicates shall be identified by industry standard MD5 or SHA-1 hash value only. Any other methodology for identification of duplicates, including email field selection for hash value creation, must be discussed with the receiving party and approved in writing before implementation.

H. **Confidentiality Designations:** If a particular paper document or ESI item qualifies for confidential treatment pursuant to the terms of a Protective Order entered by the Court in this litigation, or has been redacted in accordance with applicable law or Court order, the designation shall be shown both on the face of all TIFFs pertaining to such item/document, and in the appropriate data field in the load file.

**IV.** **PRODUCTION OF PAPER DOCUMENTS**

    A.    The parties agree that responsive paper documents from Document Custodians will be scanned and produced electronically rather than in paper format. Generally all centralized paper documents will be scanned and produced electronically, unless a party establishes good cause for making such documents available via paper and reasonable access is provided to the opposing party to review the documents directly.

    B.    **Coding Fields:** The following information shall be produced in the load file accompanying production of paper documents: (a) BegBates, (b) EndBates, (c) BegAttach, (d) EndAttach, (e) PgCount, (f) Custodian, (g) Source Party, (h) TextPath, (i) Confidentiality, and (j) Redacted (Y/N). Additionally, all paper documents will be produced with a coding field named "Paper Document" marked with a "Y."

    C.    **Unitization of Paper Document**s: Paper documents should be logically unitized for production. Therefore, when scanning paper documents for production, distinct documents shall not be merged into a single record, and single documents shall not be split into multiple records.

    D.    **File/Binder Structures:**

        1.    **Unitization:** Where the documents were organized into groups, such as folders, clipped bundles and binders, this structure shall be maintained and provided in the load file. The relationship among the documents in a folder or other grouping should be reflected in proper coding of the beginning and ending document and attachment fields. The parties will make their best efforts to unitize documents correctly.

        2.    **Identification:** Where a document, or a document group – such as folder, clipped bundle, or binder – has an identification spine or other label, the information on the label shall be scanned and produced as the first page of the document or grouping.

    E.    **Custodian Identification:** The parties will utilize best efforts to ensure that paper records for a particular custodian, which are included in a single production, are produced in consecutive Bates stamp order.

**V.** **FORMAT OF PRODUCTION OF ELECTRONICALLY STORED INFORMATION**

    A.    **System Files:** ESI productions may be de-nisted using the industry standard list of such files maintained in the National Software Reference

Library by the National Institute of Standards & Technology. Other file types may be added to the list of excluded files by agreement of the parties.

B. **Metadata Fields and Processing:**

    1.    **Time zone:** ESI items shall be processed in a manner that preserves their existing time, date, and time-zone metadata (e.g., the email of a Document Custodian located in Pennsylvania will be processed as Eastern Time, while a Document Custodian located in California will be processed as West Coast Time). If GMT time zone is used, then a time-zone offset metadata field must be provided indicating the original time zone in which the custodian of the document received or authored the document.

    2.    **Auto date/time stamps:** ESI items shall be processed so as to preserve the date/time shown in the document as it was last saved, not the date of collection or processing.

    3.    Except as otherwise set forth in this Stipulation, *infra*, ESI files shall be produced with at least each of the data fields set forth in Appendix 2 that can be extracted from a document.

    4.    The parties are not obligated to manually populate any of the fields in Appendix 2 if such fields cannot be extracted from the document using an automated process, with the exception of the following fields: (a) BegBates, (b) EndBates, (c) BegAttach, (d) EndAttach, (e) Custodian, (f) Confidentiality, (g) Redacted (Y/N), (h) AttachCount, (i) AttachName, (j) PGCount, and (k) NativeLink fields, which should be populated regardless of whether the fields can be populated pursuant to an automated process.

    5.    With respect to the italicized fields in Appendix 2, a producing party need produce only those fields that it can provide (or can provide without additional cost) if it (a) provides the receiving party or parties with a good faith, written representation describing the fields it cannot provide or cannot provide without additional cost, and (b) agrees not to use any of the requested fields that it did not produce. The parties will meet and confer in good faith to the extent that additional issues arise.

C. **Production of Native Items:** The parties agree that ESI shall be produced as TIFFs with an accompanying load file, which will contain, among other data points, the ESI data points listed in Appendix 2 hereto. The exception to this rule shall be presentation-application files (e.g., MS PowerPoint),

spreadsheet-application files (e.g., MS Excel), personal databases (e.g., MS Access), and multimedia audio/visual files such as voice and video recordings (e.g., .wav, .mpeg, and .avi), for which all ESI items shall be produced in native format. In the case of personal database (e.g., MS Access) files containing confidential or privileged information, the parties shall meet and confer to determine the appropriate form of production. In addition to producing the above file types in native format, the producing party shall produce a single-page TIFF slip sheet indicating that a native item was produced and providing the file name of the natively produced document (e.g., "Stipulation.docx"). The corresponding load file shall include NativeFileLink information for each native file that is produced. Further, the parties agree to meet and confer prior to producing native file types other than MS PowerPoint, MS Excel, and multimedia audio/visual file types such as .wav, .mpeg and .avi.  Prior to processing non-standard native files for production, the producing party shall disclose the file type to, and meet and confer with, the receiving party on a reasonably useable production format.  The parties agree to meet and confer to the extent that there is data in database application files, such as SQL and SAP, to determine the best reasonable form of production of usable data.  Through the pendency of this Litigation, the producing party shall exercise reasonable, good faith efforts to maintain all preserved and collected native files in a manner that does not materially alter or modify the file or the metadata.

D. **Requests for Other Native Files:**  Other than as specifically set forth above, a producing party need not produce documents in native format. If a party would like a particular document produced in native format, and this order does not require the production of that document in its native format, the party making such a request shall bear the burden of showing that good cause exists for the document to be produced in its native format. The requesting party will provide a specific Bates range for documents it wishes to be produced in native format. Any native files that are produced should be produced with a link in the NativeLink field, along with all extracted text and applicable metadata fields set forth in Appendix 2.

E. **Redaction:**
   1. The parties agree that where ESI items need to be redacted, they shall be produced solely in TIFF with each redaction clearly indicated, except in the case of personal database files, which shall

be governed by ¶ V(C), *supra*. Any unaffected data fields specified in Appendix 2 shall be provided. For example, if attorney-client privilege requires that the BCC field of a document needs to be redacted, all other available data fields specified in Appendix 2 shall be provided and the redacted metadata fields will be clearly indicated.

2. If the items redacted and partially withheld from production are PowerPoint-type presentation decks or Excel-type spreadsheets as addressed in ¶ V(C), *supra*, and the native items are also withheld, the entire ESI item must be produced in TIFF format, including all unprivileged pages, hidden fields and other information that does not print when opened as last saved by the custodian or end-user. For PowerPoint-type presentation decks, this shall include, but is not limited to, any speaker notes. For Excel-type spreadsheets, this shall include, but is not limited to, hidden rows and columns, all cell values, annotations and notes. The producing party shall also make reasonable efforts to ensure that any spreadsheets produced only as TIFF images are formatted so as to be legible. For example, column widths should be formatted so that the numbers in the column will display rather than "##########."

3. If the items redacted and partially withheld from production are audio/visual files, the producing party shall provide the unredacted portions of the content. If the content is a voice recording, the parties shall meet and confer to discuss the appropriate manner for the producing party to produce the unredacted portion of the content.

F. **Exception Logs:** ESI that cannot be reviewed, produced and/or imaged because of technical issues should be identified as exception files and included on a log that lists the file name, custodian, and reason for exception: for example, corruption, unavailable password protection, proprietary software, or other technical issues. The producing party shall provide an updated copy of this log to the receiving party at least every month, and shall provide a final copy of the log upon completion of document production. If the receiving party requests production of any files listed on the exception log, the parties will meet and confer on a reasonable and cost-effective means for attempting to provide the requested files.

VI. SEARCH TERMS FOR COLLECTING ELECTRONIC DOCUMENTS

A. **Initial Search Methodology:** The Parties will cooperate in good faith regarding the disclosure and formulation of appropriate search terms and protocols in advance of any search to cull Document Custodians' ESI. With the objective of limiting the scope of review and production, and thereby reducing discovery burdens, the parties shall meet and confer on the following topics by the date indicated:

1. **Within 7 days of service of initial discovery requests:** Defendants will complete all loading and processing of custodial ESI for their Priority Document Custodians (as provided in ¶ II(A) above). Defendants will disclose to Plaintiffs the search software (including version number) they plan to use to run search terms, including providing the "stop" or "noise" words used by the search software and the syntax of the search software.

2. **Within 14 days of service of initial discovery requests:** Defendants shall make a pre-search-commencement disclosure of all search terms, including **semantic** synonyms. Semantic synonyms shall mean without limitation code words, terms, phrases or illustrations, acronyms, abbreviations, or non-language alphanumeric associational references to relevant ESI, or information that may lead to relevant ESI.

3. **Within 21 days of service of initial discovery requests:** Plaintiffs shall provide any **revisions** or additions to the responding party's proposed search terms. Also, Defendants will begin running any search terms proposed by Defendants and agreed to by Plaintiffs, and begin reviewing for production the resulting documents.

4. **Within 28 days of service of initial discovery requests:** Defendants will (a) identify which **of** Plaintiffs' proposed search terms Defendants will agree to use (if not all) and (b) provide a Hit Count Report as provided in ¶ VI(D).

5. **Within 35 days of service of initial discovery requests:** The parties will meet and confer regarding the Hit Count Reports for any disputed search terms. Upon request, within 4 days of receiving a request for a Statistically Significant Random Sample of the search results from a disputed search term, Defendants will make such documents available as provided below in ¶ VI(C).

6. **Within 45 days of service of initial discovery requests:** The parties will either (1) resolve their differences on any disputed initial

search terms or (2) file a joint letter brief regarding the parties' positions on the remaining disputed initial search terms. Each party will have 2 pages single-spaced to lay out their position.

B. **Addition of Search Terms After Initial Search Term Negotiation:** If after the completion of the initial search methodology process outlined above in ¶ VI(A), Plaintiffs determine that any search terms should be added to the initial search term list, then Plaintiffs shall advise Defendants in writing of the proposed additional search term(s). Within 7 days of Plaintiffs' request for additional search terms, Defendants shall either agree to use the additional search term(s) or provide a Hit Count Report for the additional search term(s). If any search terms remain in dispute after such time, Plaintiffs may request a Statistically Significant Random Sample from the unique results of the proposed additional search term and such documents will be made available by Defendants within 4 days of such a request. Within 21 days of Plaintiffs' request for additional search terms, the parties shall either (a) agree to run the search terms (or a revised additional search term agreed to by both parties) or (b) bring the matter to the Court via a joint letter brief that provides Plaintiffs and Defendants each 2 pages to lay out their position.

C. **Statistically Significant Random Sample.** A random sample means a sample generated by an industry standard tool intended to generate random samples of documents from a given population of documents. A statistically significant sample means a sample with a confidence interval of 95% of margin of error of +/- 5%. Defendants may elect to make a Statistically Significant Random Sample available either (1) by producing such documents to Plaintiffs or (2) making such documents available via an electronic document review platform that prevents downloading or copying of such documents but permits Plaintiffs to indicate documents it views as responsive. Defendants may only withhold a potentially privileged document from the random sample if a privilege log is provided for such a document. The parties shall also consider a quick peek agreement to avoid Defendants' creation of a privilege log for the sampling process.

D. **Hit Count Report:** A hit count report must be provided in MS Excel (or other format as agreed to by both parties). A hit count report must include the following information: (a) overall number of documents being searched, (b) number of documents hit by the search term with separate hits for individual documents hit vs. documents hit including families, and (c)

unique documents hit by each search string (i.e., documents that would not be included in the search results but for the inclusion of that particular search term). For any Boolean search strings (e.g., XYZ /10 ABC or DEF), the Hit Count Report will provide information both for the search string as a whole as well as each individual component of the Boolean search string.

E.    **Non-Custodial ESI:** The parties will meet and confer regarding the appropriateness of using search terms for culling centralized data sources (i.e., non-Document Custodian ESI), including, for example, determining whether production of particular network folders without the use of search terms **is** more appropriate than culling such documents with search terms.

F.    **Validation:** The parties will meet **and** confer regarding appropriate methods to validate the recall of Defendants' search methodology for Custodial ESI.

G.    **Non-Waiver:** The parties' discussion of proposed search terms does not preclude Plaintiffs from requesting additional search terms as discovery and the litigation progress **nor** preclude Defendants from objecting to any such additional search terms requested.

H.    **Other Methods to Streamline Culling of ESI:** The parties agree to meet and confer in good faith about any other technology or process that a producing party proposes to use to streamline the document production requested by a receiving **party** in this case (e.g., email threading, near de-duplication, any technology assisted review or advanced analytic (i.e., non-Boolean) automated "filtering" or "culling" application to identify items which are potentially responsive or which are to be excluded from its production). The requesting party will be included in the implementation of technology assisted review or advanced analytics methodology, including but not limited to:

1.    Document sample set identification;

2.    The number of review rounds to categorize document;

3.    The number of qualify control review rounds to sample the categorized documents; and

4.    Key assisted review metrics and statistics regarding recall, precision, overturn, confidence, margins or error, and the measure of accuracy.

Following the disclosure of such technology or process by the producing party to the receiving party, the parties shall attempt to resolve any objections to the use of such technology or process before seeking relief from the Court.

# VII. SPECIAL ESI ISSUES

A. **Password-Protected or Encrypted Files:** With respect to any ESI items that are **password**-protected or encrypted, the Producing Party will take reasonable steps based on industry standards to break the protection so that the document can be reviewed and/or produced. In the event that encrypted or password-protected documents, which are reasonably likely to be responsive to Plaintiffs' document requests, remain for a particular custodian after such reasonable efforts have been made, the producing party shall let the receiving party know the total number of such documents and each individual producing party shall meet and confer with the receiving party.

B. **Microsoft "Auto" Feature and Macros:** Microsoft Excel (.xls) and Microsoft PowerPoint (.ppt) **documents** should be analyzed for the "auto" features, where documents have an automatically updated date and time in the document, file names, file paths, or similar information that when processed would be inaccurate for how the document was used in the ordinary course of business. If "auto date," "auto file name," "auto file path," or similar features are identified, the produced document shall be branded with the words "Auto Date," "Auto File Name," "Auto File Path" or similar words that describe the "auto" feature. Similarly, if a document contains a "macro," the document shall be branded with the word "Macro."

C. **Hidden text:** ESI items processed after the execution date of this Production Stipulation and Order shall be processed, to the extent practicable, in a manner that preserves hidden columns or rows, hidden text or worksheets, speaker notes, tracked changes and comments.

D. **Embedded Objects:** Objects embedded in Microsoft Word and .RTF documents, which have been embedded with the "Display as Icon" feature, will be **extracted** as separate documents and treated like attachments to the document. Other objects embedded in documents shall be produced as native files.

E. **Compressed Files: Compression** file types (i.e., .CAB, .GZ, .TAR, .Z, .ZIP) shall be decompressed in a reiterative manner to ensure that a zip within a zip is decompressed into the lowest possible compression resulting in individual folders and/or files.

# VIII. PARAMETERS FOR CUSTODIAL ESI COLLECTION

A.     For each of Defendants' current or former employees identified as a Document **Custodian** (either as a Priority Document Custodian or through the parties' meet and confer process), Defendants will do the following:

1.     **Email:** Unless Defendants establish good cause to the contrary, the presumption is that Defendants will collect all emails sent to or received by a Document Custodian regardless of whether such emails are in the Document Custodian's actual email account.

2.     **Cell Phone Data:** Data from current or previous cell phone devices from January 1, 2000 to the present will be preserved by direct device collection using an industry standard collection tool for each Document Custodian. Prior to any culling of cellphone data in response to Plaintiffs' discovery requests, Defendants will provide the following for each Document Custodian from January 1, 2000 to the present: (a) a list of cell phone number(s) used by the Document Custodian, including any phone numbers associated with temporary or pay-by-month cell phones, (b) the name of the phone carrier that provided service for each identified phone number, as well as the time period each phone carrier provided service, (c) type of phone, including brand and model number, if known, (d) if known, the present physical location of the device and whether Defendant has all necessary password or passcode information for accessing the data on the cell phone, (e) the Document Custodian's practices for backing up data stored on the phone (e.g., iTunes backup of an iPhone), (f) a list of installed communications-related applications on the Document Custodian's phone, including ephemeral messaging applications (e.g., SnapChat), Facebook Messenger, and other such applications.

3.     **Phone Records:** Defendants will either obtain billing statements for all phone numbers used by Document Custodians or provide signed written authorizations for the release of such phone records from applicable phone carriers (including facilitating the receipt of such authorizations on behalf of their employees where applicable).

4.     **Personal Computer based ESI:** Provide a list of every personal computer used by the Document Custodian from 2000 to the present, the model number of the personal computer, the present physical location of the computer, any backups that exist of the information from such a personal computer, and if a personal computer used by a

Document Custodian has been lost or destroyed, provide the date upon which it was lost or destroyed. Defendants will also identify whether any backups for other devices, such as an iTunes backup of an iPhone, exist on the Personal Computer.

5. **Tablets:** Defendants will identify any tablet computers used by Document Custodians between 2000 and the present.

6. **"Contacts"**: A Document Custodian's contacts (e.g., MS Outlook Contacts or cell phone-based contacts) will be exported to MS Excel (or other spreadsheet format) from the user's email account and/or cell phone with all available metadata fields included in the extraction. If a party desires to redact certain personal information (e.g., phone numbers for a Document Custodian's children), then the parties will meet and confer regarding the categories of such information to be redacted and how such information will be redacted and/or excluded from MS Excel.

7. **Cloud Based ESI:** To the extent a Document Custodian made any use of cloud-based document storage services (such as DropBox) for work-related purposes, Defendants will obtain such information and produce responsive information. To the extent a Document Custodian backed up a cell phone or tablet to a cloud-based storage system (such as iCloud), Defendants will obtain such information and produce responsive information. If for some reason Defendants are unable to obtain cloud-based ESI for a Document Custodian, then Defendants will provide Plaintiffs with a written explanation of the circumstances of the inability, including (a) the name of the Document Custodian, (b) the name of the cloud-based system on which the data is believed to be stored, (c) a description of the type of ESI believed to be stored in the Cloud-based system, (d) the efforts Defendants undertook to obtain the information, (e) whether any data on the cloud-based email system is believed to have been deleted or lost, and if so, when, and (f) whether or not the user name and password for such information is known to the Document Custodian and/or Defendant.

B. **Administrative Assistants:** Unless otherwise agreed upon, an agreement to produce documents for a particular Document Custodian shall include the collection of that Document Custodian's current and/or former administrative assistants (aka, secretary).

## IX.    CLAIMS OF PRIVILEGE AND REDACTIONS

A. **Production of Privilege Logs:** For any document withheld in its entirety or produced but redacted, the producing party will produce privilege/redaction logs in Excel format or any other format that permits electronic sorting and searching, except that the Parties shall have no obligation to log information generated after the date of commencement of this lawsuit. A producing party will produce a separate privilege/redaction log for each production within 14 days of the production of documents for which a privilege is asserted. A party asserting privilege over a chain of emails must assert privilege separately on the privilege log as to each portion of the email chain.

B. **Challenges to Privilege Claims:** Following the receipt of a privilege/redaction log, a receiving party may identify, in writing, the particular documents that it believes require further explanation. Within fourteen (14) days of such an identification, the producing party must respond to the request. If a party challenges a request for further information, the parties shall meet and confer to try to reach a mutually agreeable solution. If they cannot agree, the matter shall be brought to the Court.

C. **"Relevancy" Redactions:** The parties will not make any redactions based upon the purported relevancy of a document.

D. All other issues of privilege, including the production of privileged or protected documents or information, shall be governed by the Protective Order entered by the Court in this litigation. Officers, directors, employees, agents, and legal counsel, are referred to as the "Parties" solely for the purposes of this Protocol.

## X.    MISCELLANEOUS PROVISIONS

A. **Objections Preserved:** Nothing in this protocol shall be interpreted to require disclosure of information protected by the attorney-client privilege, work-product doctrine, or any other applicable privilege or immunity. Except as provided expressly herein, the parties do not waive any objections as to the production, discoverability, authenticity, admissibility, or confidentiality of documents and ESI.

B. **Modifications:** Any practice or procedure set forth herein may be varied by agreement of the parties, confirmed in writing, where such variance is deemed appropriate to facilitate the timely and economical production of documents or ESI.

C.   **Production of Structured Data.**  To the extent a response to discovery requires production of discoverable electronic information contained in a database, in lieu of producing the database, the parties shall meet and confer to, with an understanding of which fields are relevant, agree upon a set of queries to be made for discoverable information and generate a report in a reasonably usable and exportable electronic file (e.g., Excel or CSV format) for review by the requesting party or counsel.  Upon review of the report(s), the requesting party may make reasonable requests for additional information to explain the database schema, codes, abbreviations, and different report formats or to request specific data from identified fields.

D.   **Inaccessible ESI:**  If a producing party asserts that certain ESI is inaccessible or otherwise unnecessary under the circumstances, or if the requesting party asserts that, following production, certain ESI is not reasonably usable, the parties shall meet and confer with their respective technology experts to discuss resolving such assertions.  If the parties cannot resolve any such disputes after such a meet and confer has taken place, the issue shall be presented to the Court for resolution.

E.   No party shall modify the date or time as contained in any original ESI.

F.   **USDOJ Document Productions**: To the extent that a Defendant's production of documents to the U.S. Department of Justice is not in compliance with the terms of this agreement, the Defendant will produce a metadata overlay file with any omitted fields to avoid the duplicate production of the same documents.

G.   **Limited 28 U.S.C. § 1920 Waiver:**  Defendants waive any claim against Plaintiffs under 28 U.S.C. § 1920 for the reimbursement of any and all costs relating to the production, storage, and maintenance of ESI in TIFF format only to the extent that those TIFF-related costs exceed the corresponding costs Defendants would have incurred had Defendants produced the same ESI in native format.  Defendants expressly retain any and all other claims against Plaintiffs for reimbursement of all other costs provided for by law or as the Court deems just and proper.  By way of example only, Defendants retain the right to seek costs under 28 U.S.C. § 1920 related to the exemplification of documents for depositions, hearings or trial, as these costs would be incurred even if such documents were produced in native format.  Nothing herein constitutes an acknowledgement (implicit or otherwise) by Plaintiffs that ESI-related costs are taxable under 28 U.S.C. § 1920.  The limited waiver under 28 U.S.C. § 1920 set forth in

this paragraph does not cover, and the parties have reached no understanding on, the treatment of costs stemming from the production, formatting, structuring, or storage of documents or data produced in a format other than a TIFF based one.

H.  If either party objects to producing the requested information on the grounds that such information is not reasonably accessible because of undue burden or cost, or because production in the requested format is asserted to be not reasonably accessible because of undue burden or cost, and before asserting such an objection, the responding party will inform the requesting party of the format in which it is willing to produce it, the nature and location of the information claimed to not be reasonably accessible, the reason(s) why the requested form of production would impose an undue burden or is unreasonably costly, and afford the requesting party 10 business days from receipt of such notice to propose an alternative means of compliance with the request. Such proposal may include alternative cost estimates for ESI discovery production.  Prior to a party producing ESI in a format not requested and/or agreed to by the requesting party, (1) the parties will meet and confer regarding the issue, and failing resolution, the parties will (2) file a joint letter brief with the Court regarding the issue, with each party permitted 2 pages to lay out its position.

I.  If a party believes that responsive ESI no longer exists in its original format, or is no longer retrievable, the responding party shall explain where and when it was last retrievable in its original format, and disclose the circumstances surrounding the change in status of that ESI, including the date of such status change, the person or persons responsible for such state change, the reason or reasons such ESI is no longer retrievable in that format, and whether any backup or copy of such original ESI exists, together with the location and the custodian thereof.

==[SIGNATURE BLOCKS]==

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# Appendix 1: File Formats

**Image Load Files**

The name of the image load file should mirror the name of the delivery volume, and
should have the appropriate extension (e.g., ABC001.LFP).

The volume names should be consecutive (i.e., ABC001, ABC002, et. seq.).

There should be one row in the load file per TIFF image.

Every image in the delivery volume should be contained in the image load file.

The image key should be named the same as the Bates number of the page.

Load files should not span across media (e.g., CDs, DVDs, Hard Drives, Etc.), *i.e.*, a
separate volume should be created for each piece of media delivered.

Files that are the first page of a logical document should include a "D" where appropriate.
Files that are the first page of an attachment to an e-mail should include a "C" where
appropriate. Subsequent pages of all documents (regular document, e-mail, or
attachment) should include a blank in the appropriate position.

```
IM,VN00000001,D,0,@29502601;295026001\0000;VN00000001.TIF;2
IM,VN00000002, ,0,@29502601;295026001\0000;VN00000002.TIF;2
IM,VN00000003, ,0,@29502601;295026001\0000;VN00000003.TIF;2
IM,VN00000004, ,0,@29502601;295026001\0000;VN00000004.TIF;2
IM,VN00000005,D,0,@29502601;295026001\0000;VN00000005.TIF;2
IM,VN00000006, ,0,@29502601;295026001\0000;VN00000006.TIF;2
IM,VN00000007, ,0,@29502601;295026001\0000;VN00000007.TIF;2
IM,VN00000008, ,0,@29502601;295026001\0000;VN00000008.TIF;2
IM,VN00000009,D,0,@29502601;295026001\0000;VN00000009.TIF;2
IM,VN00000010, ,0,@29502601;295026001\0000;VN00000010.TIF;2
```

Opticon Delimited File:

```
MSC000001,MSC001,D:\IMAGES\001\MSC000001.TIF,Y,,,3
MSC000002,MSC001,D:\IMAGES\001\MSC000002.TIF,Y,,,,
MSC000003,MSC001,D:\IMAGES\001\MSC000003.TIF,Y,,,,
MSC000004,MSC001,D:\IMAGES\001\MSC000004.TIF,Y,,,2
MSC000005,MSC001,D:\IMAGES\001\MSC000005.TIF,Y,,,,
```

Summation DII File:

```
@C HASIMAGE YES
@T EPRG036023 2
@DD:\FILES\PRODUCTION\CD0004\VOL0011\Images
EPRG036023.tif
EPRG036024.tif
```

**Concordance Delimited Files:**

þBegDocþþEndDocþþBegAttachþþEndAttachþþPgCountþþCustodianþ

The data load file should use standard Concordance delimiters:

Comma - ¶ (ASCII 20);

Quote - þ (ASCII 254);

Newline - ® (ASCII174).

The first record should contain the field names in the order of the data.

All date fields should be produced in mm/dd/yyyy format.

Use carriage-return line-feed to indicate the start of the next record.

Load files should not span across media (e.g., CDs, DVDs, Hard Drives, etc.); a separate volume should be created for each piece of media delivered.

The name of the data load file should mirror the name of the delivery volume, and should have a .DAT extension (i.e., ABC001.DAT).

The volume names should be consecutive (i.e., ABC001, ABC002, et. seq.).

If Foreign Language / Unicode text exists, DAT file shall be in appropriate UTF-8 or UTF-16 format.

**OCR / Extracted Text Files**

OCR or Extracted Text files shall be provided in a separate \OCR\ directory containing Document level text files

If Foreign Language / Unicode text exists, TEXT files shall be in appropriate UTF-8 or UTF-16 format

## Appendix 2: ESI Metadata and Coding Fields

| Field Name[1] | Populated For (*Email, Edoc, Calendar, Contact or All*) | Field Description |
|---|---|---|
| BegBates | All | Control Numbers. |
| EndBates | All | Control Numbers. |
| BegAttach | All | Control Numbers (First production bates number of the first document of the family). |
| EndAttach | All | Control Numbers (Last production bates number of the last document of the family). |
| PgCount | All | Page Count. |
| Custodian | All | Custodian name (ex. John Doe). |
| CustodianOther | All | All custodians who were in possession of a de-duplicated document besides the individual identified in the "Custodian" field. |
| Size | All | Size (in bytes) of the original document. |
| LogicalPath | All | The directory structure of the original file(s). Any container name is included in the path. |
| Fingerprint | All | The MD5 or SHA-1 hash value. |
| NativeFile | All | Native File Link. |
| Email Thread ID | Email | Unique identification number that permits threading of email conversations. For instance, unique MS Outlook identification number ("PR_CONVERSATION_INDEX") is 22 bytes in length, followed by zero or more child blocks each 5 bytes in length, that permits email threading in review software |
| Thread Index | Email | Message header identifier, distinct from "PR_Conversation_Index", that permits threading of email chains in review software. |
| EmailSubject | Email | Subject line of email. |
| DateSent | Email | Date email was sent. |
| DateMod | Email, Edoc | Date the document was modified. |
| TimeSent | Email | Time email was sent. |
| Local Email Time Zone Sent | Email | Metadata field indicating the time zone in which an email was sent. For instance, unique local timestamp populated by MS Outlook on all |

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[1] Field names can vary from system to system and even between different versions of systems. Thus, parties are to be guided by these Field Names and Descriptions when identifying the metadata fields to be produced for a given document pursuant to this stipulation.

| Field Name[1] | Populated For (*Email, Edoc, Calendar, Contact or All*) | Field Description |
|---|---|---|
| | | outgoing messages is "PR_CLIENT_SUBMIT_TIME". |
| ReceiveTime | Email | Time email was received. |
| To | Email | All recipients that were included on the "To" line of the email. |
| From | Email | The name and email address of the sender of the email. |
| CC | Email | All recipients that were included on the "CC" line of the email. |
| BCC | Email | All recipients that were included on the "BCC" line of the email. |
| AttachmentCount | Email | Number of attached documents. |
| Attach | Email | The file name(s) of the attached documents. |
| Importance Ranking | Email | Level of importance/sensitivity of messages. |
| Follow- Up Flags | Email | Tracks responses to messages that were sent and follow up on messages that were received. |
| Status as READ or UNREAD | Email | Whether or not a message was READ or UNREAD. |
| GUID/$Message ID | Email | The unique Email message identifier (to extent different from "Email Conversation Threading Index Number" noted above). |
| ID of Original Message REPLIED to or FORWARDED | Email | The unique Email message identifier of the previous message in the thread (the message that was replied to or forwarded). |
| Agent ID | Email | If the item was created by someone on behalf of the email box owner, ID of the agent who created/sent the item. |
| DateCreated | Edoc | Date the document was created. |
| FileName | Email, Edoc | File name of the edoc or email. |
| Title | Edoc | Any value populated in the Title field of the document properties. |
| Subject | Edoc | Any value populated in the Subject field of the document properties. |
| Author | Edoc | Any value populated in the Author field of the document properties. |

| Field Name[1] | Populated For (*Email, Edoc, Calendar, Contact or All*) | Field Description |
|---|---|---|
| DocExt | All | File extension of the document. |
| TextPath | All | Relative path to the document level text file specified in Paragraph I.C of this ESI Stipulation and Order. |
| Redacted | All | "X," "Y," "Yes," "True," are all acceptable indicators that the document is redacted. Otherwise, blank. |
| Confidentiality | All | Indicates if document has been designated as "Confidential" or "Highly Confidential" under the Protective Order. |
| MD5 | Email, Edoc | MD5 or SHA-1 hash value of the document |
| Date of Creation | Contact | Date the contact entry was created or sent |
| Last Modified Date | Contact | Date the contact entry was last modified. |
| Name Fields | Contact | All names associated with contact entry (such as first, last, middle, nicknames, prefix, suffix, etc.) |
| Email Aliases | Contact | For example, the name or reference that will display in the email address lines in place of the actual email address |
| Phone Numbers | Contact | All phone numbers associated with the contact entry |
| Addresses | Contact | All physical/mailing addresses associated with the contact entry |
| URL addresses | Contact | All URL addresses associated with the contact entry |
| Notes/Journal Field | Contact | All free text entered by user that is associated with and reflected in contact entry |
| Other Contacts | Contact | Identification of other contact entries associated with and reflected in the contact entry, such as contact entry's assistant or manager |
| Contact Tracking | Contact | Track contacts made with the person or entity shown in the contact entry, such as date and/or time and type of contact. |
| Importance Ranking | Contact | Level of importance/sensitivity of the contact entry |
| Follow-Up Flags | Contact | Tracks responses to contact entries that were sent and follow up on contact entries that were received. |
| Categories/ Groups | Contact | Specific fields designed to sort, filter or classify the contact entry |
| Date of Creation | Calendar | The date the calendar entry was created or sent |

| Field Name[1] | Populated For (*Email, Edoc, Calendar, Contact or All*) | Field Description |
|---|---|---|
| Last Modified Date | Calendar | Date the contact entry was last modified. |
| Originator / Author | Calendar | The author of the calendar entry or the person who sent the calendar entry. |
| Recipients | Calendar | The persons that the calendar entry was sent to. |
| Subject / Title field(s) | Calendar | The subject or titles for the calendar entry. |
| Other fields associated with the date, time and place of the calendar entry | Calendar | For example, address and room designations for physical location meetings; dial-in information or web addresses for phone conferences and virtual meetings. |
| Notes/Journal Field | Calendar | All free text entered by user that is reflected in the calendar entry |
| Importance Ranking | Calendar | Level of importance/sensitivity of the calendar entry |
| Follow- Up Flags | Calendar | Tracks responses to contact entries that were sent and follow up on contact entries that were received. |
| Categories/ Groups | Calendar | Specific fields designed to sort, filter or classify calendar entries |
| Response Category | Calendar | The response to a calendar or meeting invitation (such as tentative or accepted) |