

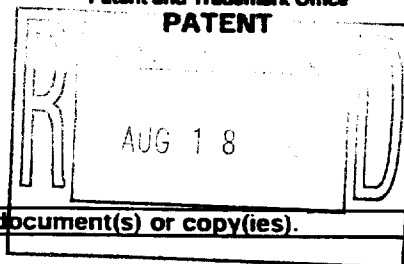
08-25-1999

PATENT



101125499

RECORDATION FORM COVER SHEET
PATENTS ONLY



TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

☒ New
☐ Resubmission (Non-Recordation)
Document ID#
☐ Correction of PTO Error
Reel # Frame #
☐ Corrective Document
Reel # Frame #

Conveyance Type

☐ Assignment ☒ Security Agreement
☐ License ☐ Change of Name
☐ Merger ☐ Other
U.S. Government
(For Use ONLY by U.S. Government Agencies)
☐ Departmental File ☐ Secret File

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached
Name (line 1) MACTEC, Inc. Execution Date
Month Day Year
06 24 99

Second Party

Name (line 1)
Name (line 2)
Execution Date
Month Day Year

Receiving Party

☐ Mark if additional names of receiving parties attached
☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 1) Paribas
Name (line 2)
Address (line 1) 1200 Smith Street
Address (line 2) Suite 3100
Address (line 3) Houston TX 77002
City State/Country Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name
Address (line 1)
Address (line 2)
Address (line 3)
Address (line 4)

FOR OFFICE USE ONLY

08/23/1999 MTHAI1 00000281 4886119

01 FC:581

1040.00 DP

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Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

PATENT
REEL: 010175 FRAME: 0953

Correspondent Name and Address

Area Code and Telephone Number (202) 457-5210

Name George M. Borababy, Esq.

Address (line 1) Patton Boggs LLP

Address (line 2) 2550 M Street, N.W.

Address (line 3) Washington, D.C. 20037

Address (line 4)

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

16

Application Number(s) or Patent Number(s)

☒ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

4886119	4950394	5095975
4892688	5071550	5116163
4943305	5082053	5143606

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number
only if a U.S. Application Number
has not been assigned.

PCT		PCT		PCT	
PCT		PCT		PCT	

Number of Properties

Enter the total number of properties involved.

26

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$ 1040.00

Method of Payment:
Deposit Account

Enclosed ☒ Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

500709

Authorization to charge additional fees:

Yes ☒ No ☐

Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

George M. Borababy

Name of Person Signing


Signature

8/16/99
Date

RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

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Enter additional Receiving Party(ies)

Name (line 1)

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Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

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☒ Mark if additional numbers attached

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Patent Application Number(s)

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<input type="text"/>	<input type="text"/>	<input type="text"/>

Patent Number(s)

5143607	5281333	5346330
5147535	5318698	5348420
5171103	5322128	5375478
5171104	5345655	5380126
5220958	5345820	5403476

RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

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Enter additional Conveying Parties

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Execution Date
Month Day Year

Name (line 2)

Execution Date
Month Day Year

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Name (line 2)

Execution Date
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Address (line 1)

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Address (line 3) City State/Country Zip Code

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

5435914

5468097

Schedule A
United States Patents

<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>
4,886,119	12/12/89	Method of and Arrangement for Driving Volatile Impurities from Ground
4,892,688	01/09/90	Arrangement for Expelling Light Volatile Contaminants from Liquids
4,943,305	07/24/90	Aerating Apparatus for Expelling Volatile Impurities from Ground Water
4,950,394	08/21/90	Arrangement for Driving Out Volatile Impurities from Ground Water
5,071,550	12/10/91	Apparatus for Cleaning and Aeration of Open Bodies of Water
5,082,053	01/21/92	Arrangement for Cleaning Contaminated Ground Water
5,095,975	03/17/92	Arrangement for Driving Volatile Impurities from Ground Water
5,116,163	05/26/92	Arrangement for Driving Out Volatile Impurities from Ground Water
5,143,606	09/01/92	Arrangement for Cleaning Contaminated Ground Water
5,143,607	09/01/92	Arrangement for Driving Out Volatile Impurities from Ground Water
5,147,535	09/15/92	Arrangement for Driving Out of Volatile Impurities from Ground Water Using Vibrations
5,171,103	12/15/92	Arrangement for Expelling Highly Volatile Impurities from Ground Water
5,171,104	12/15/92	Arrangement for Treating Gas from Contaminated Ground Region
5,220,958	06/22/93	Arrangement for Driving Out of Impurities from Ground Water
5,281,333	01/25/94	Arrangement for Cleaning Ground Water
5,318,698	06/07/94	Arrangement for Cleaning Contaminated Ground Water
5,322,128	06/21/94	Method of Forming Well Regions
5,345,655	09/13/94	Method of and Arrangement for Obtaining Liquids and/or Gases from Ground or Rock Layers
5,345,820	09/13/94	Method of and Arrangement for Determining Geohydraulic Permeability of Ground Regions Through Which Ground Water Flows

WAB/SS

<u>Patent No.</u>	<u>Issue Date</u>	<u>Title</u>
5,346,330	09/13/94	Method of Yielding Oil Residues or Oil Containing Liquids from Contaminated Ground Layers
5,348,420	09/20/94	Method and Arrangement for Influencing Liquid in Ground
5,375,478	12/27/94	Test Taking Arrangement
5,380,126	01/10/95	Method of and Arrangement for Rinsing Out Impurities from Ground
5,403,476	04/04/95	Arrangement for Removing Impurities from Ground Water
5,435,914	07/25/95	Clarifying Arrangement for Waste Water
5,468,097	11/21/95	Method of Circulating Ground Water in Ground Regions with a Fall of Ground Water Level

KAB/SES

PATENT COLLATERAL SECURITY AGREEMENT

THIS PATENT COLLATERAL SECURITY AGREEMENT is made as of the 24th day of June, 1999 by and between **MACTEC, INC.**, a Colorado corporation (the "Borrower") having a mailing address at 1819 Denver West Blvd., Ste. 400, Golden, Colorado 80401 and **PARIBAS**, a bank organized under the laws of France acting through its Houston, Texas agency, as Agent for the Lenders having a mailing address at 1200 Smith Street, Suite 3100, Houston, Texas 77002 or at such other place as the Agent shall designate in writing to the Company ("Agent").

BACKGROUND

Agent has entered into a Credit Agreement with Borrower, dated as of June 24, 1999 (the "Credit Agreement"), which provides for certain credit accommodations from Lenders to Borrower. In order to induce Lenders to provide the credit accommodations set forth in the Credit Agreement, Borrower agreed to execute and deliver to Agent, for the benefit of Lenders, this Patent Collateral Security Agreement ("Security Agreement"). This Security Agreement, covering Patents (as hereinafter defined), is being executed in connection with the Credit Agreement under which Agent, for the benefit of Lenders, is granted a lien on and security interest in the Patents, whereby Agent shall have the right to foreclose simultaneously, subject to grace periods set forth therein, on the Patents in the event of the occurrence and continuance of an Event of Default under the Credit Agreement.

NOW, THEREFORE, in consideration of the premises, Borrower and Agent hereby agree as follows:

1. Defined Terms. Unless otherwise defined herein, terms defined in the Credit Agreement shall have their defined meanings when used herein and the following terms shall have the following meanings, unless the context otherwise requires:

"Code" shall mean the Uniform Commercial Code as the same may from time to time be in effect in the State of Texas.

"Collateral" shall have the meaning assigned to it in Section 2 of this Security Agreement.

"Excluded Property" means property encumbered by a Lien existing on the date of this Agreement which is listed on Schedule 8.04(a) of the Credit Agreement, but only if the security agreement which created such Lien provides that the granting of any additional Lien on such property constitutes a default under such security agreement.

"Licenses" shall mean the patent license agreements of Borrower designated on Schedule I hereto, as any of the same may from time to time be amended or supplemented.

"Patents" shall mean all right, title and interest in and to the U.S. patent applications and U.S. patents referred to in the attached Schedule A and those patents which are hereafter obtained or acquired by Borrower and all registrations, applications and recordings thereof, including, without limitation, all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, and all applications, registrations and recordings in the United States Patent and Trademark Office or in any similar office or agency of the United States, or any State thereof, all whether now owned or hereafter acquired by Borrower.

"Proceeds" shall have the meaning assigned to it under Section 9-306 of the Code, and in any event, shall include, but not be limited to, (i) any and all proceeds of any insurance, indemnity, warranty or guarantee payable to Borrower from time to time with respect to any of the Collateral, (ii) any and all payments (in any form whatsoever) made or due and payable to Borrower from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Collateral by any governmental body, authority, bureau or agency (or any person acting under color of governmental authority), and (iii) any and all other amounts from time to time paid or payable under or in connection with any of the Collateral.

"Security Agreement" shall mean this Patent Collateral Security Agreement, as the same may from time to time be amended or supplemented.

2. **Grant of Security Interest.** As collateral security for the prompt payment of the Obligations, Borrower hereby grants and conveys to Agent, for the benefit of Lenders, a security interest in and to the following property, but excluding the Excluded Property: (a) the entire right, title and interest of Borrower in and to the Patents, including the registrations and applications appurtenant thereto, listed in Schedule A hereto (as the same may be amended pursuant hereto from time to time), and in and to any and all patents, and registrations and applications appurtenant thereto, hereafter acquired or filed by Borrower, including without limitation all renewals thereof, all proceeds of infringement suits, the rights to sue for past, present and future infringements and all rights corresponding thereto in the United States and all reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, and (b) all of Borrower's right, title and interest in, to and under the following:

(i) all Licenses;

(ii) all accounts, contract rights and general intangibles arising under or relating to each and every License (including, without limitation, (A) all moneys due and to become due under any License, (B) any damages arising out of or for breach or default in respect of any such License, (C) all other amounts from time to time paid or payable under or in connection with any such License, and (D) the right of Borrower to terminate any such License or to perform and to exercise all remedies thereunder); and

(iii) to the extent not otherwise included, all Proceeds and products of any or all of the foregoing. All of the property referred to in this paragraph 2 is hereafter collectively called the "Collateral".

3. Representations and Warranties. Except as set forth on Schedule 3, Borrower covenants and warrants that as of the date of this Security Agreement:

(a) The Patents are existing and have not been adjudged invalid or unenforceable except where a lack of subsistence or invalidity would not cause a Material Adverse Effect;

(b) Borrower is the sole and exclusive owner of the entire and unencumbered right, title and interest in and to each of the Patents, free and clear of any liens, charges and encumbrances, (including without limitation pledges, assignments, licenses, registered user agreements and covenants by Borrower not to sue third persons), expressly relating to such Patents), except for (a) the Licenses referred to in Schedule I attached hereto, (b) Permitted Liens, and (c) liens, charges and encumbrances not causing a Material Adverse Effect;

(c) Borrower has the corporate power and authority to enter into this Security Agreement and perform its terms;

(d) To the extent necessary to prevent the abandonment, invalidation, unenforceability, avoidance or substantial diminution of value, Borrower has used, and will continue to use for the duration of this Security Agreement, proper statutory notice, where appropriate, in connection with its use of the Patents except where such a lack of notice would not cause a Material Adverse Effect; and

(e) To the extent necessary to prevent the abandonment, invalidation, unenforceability, avoidance or substantial diminution of value, Borrower has used, and will continue to use for the duration of this Security Agreement, consistent standards of quality in its manufacture of products sold under the Patents except where such an inconsistency would not cause a Material Adverse Effect.

4. Covenants. Borrower covenants and agrees with Agent that from and after the date of this Security Agreement and until the Obligations are fully satisfied:

(a) Further Documentation; Pledge of Instruments. At any time and from time to time, upon the written request of Agent, Borrower will promptly and duly execute and deliver any and all such further instruments and documents and take such further action as Agent may reasonably deem desirable in obtaining the full benefits of this Security Agreement and of the rights and powers herein granted, including, without limitation, the filing of any financing or continuation statements under the Code with respect to the liens and security interests granted hereby. Borrower also hereby authorizes Agent to file any such financing or continuation statement without the signature of Borrower to the extent permitted by applicable law.

(b) Maintenance of Patents. If such action or omission would cause a Material Adverse Effect, Borrower will not do any act, or omit to do any act, that causes the Patents or any registration or application appurtenant thereto, to become abandoned, invalidated, unenforceable, avoided, avoidable, or otherwise substantially diminish in value. If the failure to do so would cause a Material Adverse Effect, Borrower shall take reasonable action at its

expense, to halt the infringement of the Patents and shall properly exercise its duty to control the nature and quality of the goods offered by any licensees in connection with the Licenses set forth in Schedule I to the extent necessary to prevent the abandonment, invalidation, unenforceability or avoidance of such licenses.

(c) Indemnification. (A) Borrower assumes all responsibility and liability arising from its use of the Patents, and Borrower hereby indemnifies and holds Agent harmless from and against any claim, suit, loss, damage or expense (including reasonable attorneys' fees) arising out of Borrower's operations of its business from the use of the Patents except a claim, suit, loss, damage or expense from Agent's gross negligence or willful misconduct. (B) In any suit, proceeding or action brought by Agent under any License for any sum owing thereunder, or to enforce any provisions of such License, Borrower will indemnify and keep Agent harmless from and against all expense, loss or damage suffered by reason of any defense, set off, counterclaim, recoupment or reduction or liability whatsoever of the obligee thereunder, arising out of a breach of Borrower of any obligation thereunder or arising out of any other agreement, indebtedness or liability at any time owing to or in favor of such obligee or its successors from Borrower, and all such obligations of Borrower shall be and remain enforceable against and only against Borrower and shall not be enforceable against Agent unless attributable to the Agent's gross negligence or willful misconduct.

(d) Limitation of Liens on Collateral. Except for Permitted Liens, Borrower will not create, permit or suffer to exist, any lien, security interest, encumbrance, claim or right, in or to the Collateral, and to any of Borrower's rights under any License and to the Proceeds thereof unless such a lien, security interest, encumbrance, claim or right would not cause a Material Adverse Effect.

(e) Limitations on Modifications of Licenses. To the extent necessary to prevent the abandonment, invalidation, unenforceability or avoidance of any License, Borrower will not (i) amend, modify, terminate (other than in accordance with its terms) or waive any provision of any License in any manner, (ii) fail to exercise promptly and diligently each and every material right which it may have under each License (other than any right of termination) unless such amendment, modification, termination or failure to exercise would not cause a Material Adverse Effect.

(f) Limitation on Further Uses of Patents. Except for Permitted Liens, Borrower will not assign, sell, mortgage, lease, transfer, pledge, hypothecate, grant a security interest in or lien upon, encumber, grant an exclusive license or nonexclusive license, or otherwise dispose of any of the Collateral, without written consent of Agent, unless such actions would not cause a Material Adverse Effect.

5. Agent's Appointment as Attorney-in-Fact.

(a) Borrower hereby irrevocably constitutes and appoints Agent and any officer or agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of Borrower and in the name of Borrower or in its own name, from time to time in Agent's discretion, for the purposes of

carrying out the terms of this Security Agreement, upon the occurrence and during the continuation of an Event of Default, to take any and all appropriate action and to execute any and all documents and instruments which may be necessary or desirable to accomplish the purposes of this Security Agreement and, without limiting the generality of the foregoing, hereby gives Agent the power and right, on behalf of Borrower, to do the following:

(i) Upon the occurrence and during the continuance of an Event of Default, to ask, demand, collect, receive and give acquittances and receipts for any and all moneys due and to become due under any License and, in the name of Borrower or its own name or otherwise, to take possession of and endorse and collect any checks, drafts, notes, acceptances or other instruments for the payment of moneys due under any License and to file any claim or to take any other action or proceeding in any court of law or equity or otherwise deemed appropriate by Agent for the purpose of collecting any and all such moneys due under any License whenever payable;

(ii) Upon the occurrence and during the continuance of an Event of Default, to pay or discharge taxes, liens, security interests or other encumbrances levied or placed on or threatened against the Collateral,

(iii) Upon the occurrence and during the continuance of an Event of Default, (A) to direct any party liable for any payment under any License to make payment of any and all moneys due and to become due thereunder directly to Agent or as Agent shall direct; (B) to receive payment of and receipt for any and all moneys, claims and other amounts due and to become due at any time in respect of or arising out of any Collateral; (C) to commence and prosecute any suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect the Collateral or any part thereof and to enforce any other right in respect of any Collateral; (D) to defend any suit, action or proceeding brought against Borrower with respect to any Collateral; (E) to settle, compromise, or adjust any suit, action or proceeding described above and, in connection therewith, to give such discharges or releases as Agent may reasonably deem appropriate; and (F) generally to sell, transfer, pledge, make any agreement with respect to or otherwise deal with any of the Collateral as fully and completely as though Agent were the absolute owner thereof for all purposes, and to do, at Agent's option all acts and things which Agent reasonably deems necessary to protect, preserve or realize upon the Collateral and Agent's security interest therein, in order to effect the intent of this Security Agreement, all as fully and effectively as Borrower might do.

This power of attorney is a power coupled with an interest and shall be irrevocable. Notwithstanding the foregoing, Borrower shall execute any additional documents which Agent may require in order to confirm this power of attorney, or which Agent may deem necessary to enforce any of its rights contained in this Security Agreement.

(b) The powers conferred on Agent hereunder are solely to protect its interests in the Collateral and shall not impose any duty upon it to exercise any such powers. Agent shall be accountable only for amounts that it actually receives as a result of the exercise of such powers and neither it nor any of its officers, directors, employees or agents shall be responsible

to Borrower for any act or failure to act, except for its own gross negligence or willful misconduct.

(c) Borrower also authorizes Agent to execute, in connection with the sale provided for in paragraph 8(b) of this Security Agreement, any endorsements, assignments or other instruments of conveyance or transfer with respect to the Collateral.

6. Execution of Power of Attorney. Concurrently with the execution and delivery hereof, Borrower is executing and delivering to Agent, in the form of Schedule II hereto, ten (10) originals of a Power of Attorney for the implementation of the assignment, sale or other disposal of the Patents pursuant to paragraph 5 hereof.

7. Performance by Agent of Borrower's Obligations. If Borrower fails to perform or comply with any of its agreements contained herein and Agent, as provided for by the terms of this Security Agreement, shall itself perform or comply, or otherwise cause performance or compliance, with such agreement, the reasonable expenses of Agent incurred in connection with such performance or compliance shall be payable by Borrower to Agent on demand and shall constitute Obligations secured hereby.

8. Remedies, Rights Upon Event of Default.

(a) If an Event of Default shall occur and be continuing:

(i) All payments received by Borrower under or in connection with any of the Collateral shall be held by Borrower in trust for Agent, shall be segregated from other funds of Borrower and shall forthwith upon receipt by Borrower, be turned over to Agent, in the same form as received by Borrower (duly endorsed by Borrower or Agent, if required); and

(ii) Any and all such payments so received by Agent (whether from Borrower or otherwise) may, in the sole discretion of Agent, be held by Agent as collateral security for, and/or then or at any time thereafter applied in whole or in part by Agent against all or any part of the Obligations as provided in the Credit Agreement. Any balance of such payments held by Agent and remaining after payment in full of all the Obligations shall be paid over to Borrower or to whomsoever may be lawfully entitled to receive the same.

(b) If any Event of Default shall occur and be continuing, Agent may exercise in addition to all other rights and remedies granted to it in this Security Agreement and in any other instrument or agreement securing, evidencing or relating to the Obligations, all rights and remedies of a secured party under the Code, including, without limitation, sale of the Collateral. Borrower shall remain liable for any deficiency if the proceeds of any sale or disposition of the Collateral are insufficient to pay all amounts to which Agent is entitled. Borrower shall also be liable for the reasonable fees of any attorneys employed by Agent to collect any such deficiency and also as to any reasonable attorney's fees incurred by Agent with respect to the collection of any of the Obligations and the enforcement of any of Agent's respective rights hereunder.

9. Termination. At such time as Borrower shall completely pay in full all of the Obligations and the Credit Agreement is terminated, this Security Agreement shall terminate and Agent shall execute and deliver to Borrower all such releases, deeds, assignments and other instruments as may be necessary or proper to re-vest in Borrower full title to and release any lien on the Patents, subject to any disposition thereof which may have been made by Agent pursuant hereto.

10. Notices. Any notice to Agent shall be deemed to have been duly given when given under the Credit Agreement.

11. No Waiver. No course of dealing between Borrower and Agent, nor any failure to exercise, nor any delay in exercising, on the part of Agent, any right, power or privilege hereunder or under the Credit Agreement shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder or thereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

12. Cumulative Remedies. All of Agent's rights and remedies with respect to the Collateral, whether established hereby or by the Credit Agreement, or by any other agreements or by law, shall be cumulative and may be exercised singularly or concurrently.

13. Severability. The provisions of this Security Agreement are severable, and if any clause or provision shall be held invalid and unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision, or part thereof, in such jurisdiction, and shall not in any manner affect such clause or provision in any other jurisdiction, or any other clause or provision of this Security Agreement in any jurisdiction.

14. No Modification Except in Writing. This Security Agreement is subject to modification only by a writing signed by the parties.

15. Successors and Assigns. The benefits and burdens of this Security Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties in accordance with the Credit Agreement.

16. Governing Law. The validity and interpretation of this Security Agreement and the rights and obligations of the parties shall be governed by the laws of the State of Texas.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this Security Agreement under the seal as of the day and first written above.

WITNESS:

Elizabeth R. Mann

MACTEC, INC.

By:

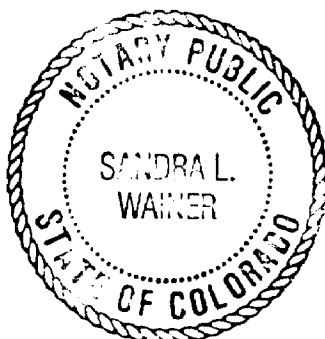
Scott E. Hine

STATE OF COLORADO)

: ss.:

COUNTY OF DENVER)

Before me, the undersigned, on this 24th day of June ____, 1999 personally appeared John E. Skate, to me known personally, and who being by me duly sworn, deposes and says that he is the President of **MACTEC, INC.** and that said instrument was signed on behalf of said corporation by authority of its Board of Directors, and he acknowledged said instrument to be the free act and deed of said corporation.



My Comm. Expires 12/05/2002

Sandra L. Wainer
Notary Public
My Commission Expires: 12/05/02

SCHEDULE I

Schedule I to a Patent Collateral Security Agreement dated as of June 24, 1999 by and between MACTEC, Inc. and Paribas.

1. The Borrower is the exclusive, worldwide licensee of U.S. Patent Nos. 5,180,503 and 5,389,267 for the NoVOC's technology pursuant to an Agreement dated April 2, 1994 between The Board of Trustees of the Leland Stanford Junior University and NOVOCS, Inc., which agreement was assigned by EG&G, Inc. and EG&E Environmental Inc. to the Borrower in accordance with the terms of an Asset Purchase Agreement among the Borrower, EG&G, Inc. and EG&E Environmental Inc. dated November 25, 1997.

(a) The Borrower has granted a non-exclusive sublicense for the NoVOC's technology to Westinghouse Savannah River Company pursuant to a License Agreement dated June 21, 1996.

(b) The Borrower has granted both a non-exclusive and exclusive (with respect to certain jurisdictions) sublicense for the NoVOC's technology to Metcalf & Eddy, Inc. pursuant to a License Agreement dated August 2, 1996.

2. Pursuant to the MACTEC/SABRE Program Agreement effective May 20, 1998, Sabre Oxidation Technologies, Inc. granted to the Borrower an exclusive right to use its patented chemical oxidation process for water treatment.

3. Pursuant to a License Agreement dated October 1, 1997, and amended as of July 30, 1998, Osmotek, Inc. granted to the Borrower and its subsidiary MACTEC Environmental Technologies Company, L.L.C., a non-exclusive worldwide license for its patented Direct Osmosis technology.

SCHEDULE II

SPECIAL POWER OF ATTORNEY

[MACTEC]

STATE OF COLORADO)
 : ss.:
COUNTY OF _____)

KNOW ALL MEN BY THESE PRESENTS, that **MACTEC, INC.**, a corporation formed under the laws of Colorado, with its principal office at 1819 Denver West Blvd., Ste. 400, Golden, Colorado 80401 (hereinafter called "Borrower"), pursuant to a Patent Collateral Security Agreement, dated the date hereof (the "Security Agreement"), hereby appoints and constitutes **PARIBAS**, having a mailing address at 1200 Smith Street, Suite 3100, Houston, Texas 77002, as Agent for certain lenders (hereinafter called the "Agent"), its true and lawful attorney, with full power of substitution, and with full power and authority to perform the following acts on behalf of Borrower:

1. In accordance with the Security Agreement, assigning, selling or otherwise disposing of all right, title and interest of Borrower in and to the Patents listed on Schedule A of the Security Agreement, and including those Patents which are added to the same subsequent hereto, and all registrations and recordings thereof, and all pending applications therefor, and for the purpose of the recording, registering and filing of, or accomplishing any other formality with respect to the foregoing, and to execute and deliver any and all agreements, documents, instruments of assignment or other papers necessary or advisable to effect such purpose;
2. In accordance with the Security Agreement, to execute any and all documents, statements, certificates or other papers necessary or advisable in order to obtain the purposes described above as Agent may in its sole discretion determine.

This power of attorney is made pursuant to the Security Agreement, dated the date hereof, between Borrower and Agent and may not be revoked until the payment in full of all Obligations as defined in such Security Agreement.

MACTEC, INC.

By: _____
Title: _____
Date: _____

STATE OF COLORADO)
 : ss.:
COUNTY OF _____)

On this _____ day of June, 1999, before me personally came _____, to me known, who, being by me duly sworn, did depose and say that he is the _____ of **MACTEC, INC.**, the corporation described in and which executed the foregoing instrument; and that he signed his name thereto by order of the Board of Directors of said corporation.

Notary Public

My Commission Expires:

SPECIAL POWER OF ATTORNEY

[MACTEC]

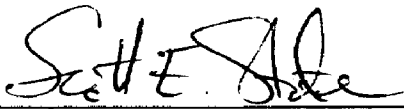
STATE OF COLORADO)
 : ss.:
COUNTY OF Denver)

KNOW ALL MEN BY THESE PRESENTS, that **MACTEC, INC.**, a corporation formed under the laws of Colorado, with its principal office at 1819 Denver West Blvd., Ste. 400, Golden, Colorado 80401 (hereinafter called "Borrower"), pursuant to a Patent Collateral Security Agreement, dated the date hereof (the "Security Agreement"), hereby appoints and constitutes **PARIBAS**, having a mailing address at 1200 Smith Street, Suite 3100, Houston, Texas 77002, as Agent for certain lenders (hereinafter called the "Agent"), its true and lawful attorney, with full power of substitution, and with full power and authority to perform the following acts on behalf of Borrower:

1. In accordance with the Security Agreement, assigning, selling or otherwise disposing of all right, title and interest of Borrower in and to the Patents listed on Schedule A of the Security Agreement, and including those Patents which are added to the same subsequent hereto, and all registrations and recordings thereof, and all pending applications therefor, and for the purpose of the recording, registering and filing of, or accomplishing any other formality with respect to the foregoing, and to execute and deliver any and all agreements, documents, instruments of assignment or other papers necessary or advisable to effect such purpose;
2. In accordance with the Security Agreement, to execute any and all documents, statements, certificates or other papers necessary or advisable in order to obtain the purposes described above as Agent may in its sole discretion determine.

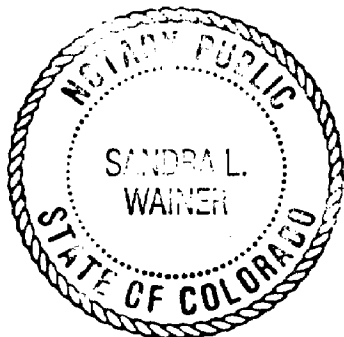
This power of attorney is made pursuant to the Security Agreement, dated the date hereof, between Borrower and Agent and may not be revoked until the payment in full of all Obligations as defined in such Security Agreement.

MACTEC, INC.

By: 
Title: President
Date: 6/24/99

STATE OF COLORADO)
 : ss.:
COUNTY OF Denver)

On this 24th day of June, 1999, before me personally came Scott E. Slater, to me known, who, being by me duly sworn, did depose and say that he is the President of **MACTEC, INC.**, the corporation described in and which executed the foregoing instrument; and that he signed his name thereto by order of the Board of Directors of said corporation.



My Comm. Expires 12/05/2002

Sandra L. Wainer
Notary Public
My Commission Expires: 12/05/02

9131.104:82986.01
MACTEC Patent Collateral Security Agreement
Special Power of Attorney

PATENT
REEL: 010175 FRAME: 0972