Dialog search for literature on ecological impacts/criteria of total petroleum hydrocarbons in soil.

Date of Search: 12/7/04

Query: s (total ()petroleum()hydrocarbon?)/ti,ab and (soil? Or sediment?)/ti,ab and (phytotox? Or ecotox? Or ecological()risk()assessment? Or ecological or ecological()screening()criteria or resc) and la=english and 1996:2004

Dialog Databases Searched:

All science, then:

- Agricola (File 10)
- Biosis (File 5)
- CAB Abstracts (File 50)
- Elsevier Biobase (File 71)
- Enviroline (File 40)
- Environmental Science and Technology (File 103)
- Geobase (File 292)
- GeoRef (File 89)
- TRIS (File 63)
- Waste Info (File 110)

PubMed (separate search conducted online at http://www.ncbi.nlm.nih.gov/entrez/query.fcgi)

1

DIALOG(R)File 5:Biosis Previews(R)

0014212810 BIOSIS NO.: 200300171529

Ecotoxicological risks associated with land treatment of petrochemical wastes. I. Residual soil contamination and bioaccumulation by cotton rats (Sigmodon hispidus).

AUTHOR: Schroder Jackie L; Basta Nicholas T; Payton Mark; Wilson James A; Carlson Ruth I; Janz David M (Reprint); Lochmiller Robert L
AUTHOR ADDRESS: Department of Veterinary Biomedical Sciences, Western College of Veterinary Medicine, University of Saskatchewan, 52 Campus Drive, Saskatoon, SK, S7N 5B4, Canada
AUTHOR E-MAIL ADDRESS: david.janz@usask.ca
JOURNAL: Journal of Toxicology and Environmental Health Part A 66 (4): p 305-325 February 28, 2003
ISSN: 1528-7394 DOCUMENT TYPE: Article

2

DIALOG(R)File 5:Biosis Previews(R)

0014153388 BIOSIS NO.: 200300112107

Restoration of petroleum-contaminated soil using phased bioremediation.

AUTHOR: Brown James L (Reprint); Nadeau Royal J
AUTHOR ADDRESS: Lockheed Martin/REAC, 2890 Woodbridge Avenue, Edison, NJ, 08837, USA
JOURNAL: Bioremediation Journal 6 (4): p315-319 December 2002
ISSN: 1088-9868 DOCUMENT TYPE: Article

3
DIALOG(R)File 5:Biosis Previews(R)

0012382596 BIOSIS NO.: 200000100909

Temporal ecological assessment of oil contaminated soils before and after bioremediation
AUTHOR: Dorn Philip B (Reprint); Salanitro Joseph P
AUTHOR ADDRESS: Equilon Enterprises, LLC, Westhollow Technology Center, Houston, TX, 77251-1380, USA**USA
JOURNAL: Chemosphere 40 (4): p419-426 Feb., 2000
ISSN: 0045-6535 DOCUMENT TYPE: Article

4
DIALOG(R)File 5:Biosis Previews(R)

0012077864 BIOSIS NO.: 199900337524

Ecotoxicological and analytical assessment of hydrocarbon-contaminated soils and application to ecological risk assessment
AUTHOR: Saterbak Ann; Toy Robin J; Wong Diana C L; McMain Bruce J; Williams M Patty; Dorn Philip B (Reprint); Brzuzy Louis P; Chai Eric Y; Salanitro Joseph P
AUTHOR ADDRESS: Equilon Enterprises LLC, Westhollow Technology Center, Houston, TX, 77251-1380, USA
JOURNAL: Environmental Toxicology and Chemistry 18 (7): p1591-1607 July, 1999
ISSN: 0730-7268 DOCUMENT TYPE: Article

5
DIALOG(R)File 5:Biosis Previews(R)

0011377748 BIOSIS NO.: 199800171995

Total petroleum hydrocarbon criteria working group: A risk-based approach for the management of total petroleum hydrocarbons in soil
AUTHOR: Weisman Wade H (Reprint)
AUTHOR ADDRESS: OL AL HSC/OET, 2856 G. Street, Wright Patterson Air Force Base, OH 45433-7400, USA
JOURNAL: Journal of Soil Contamination 7 (1): p1-15 Jan., 1998
ISSN: 1058-8337 DOCUMENT TYPE: Article

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DIALOG(R)File 5:Biosis Previews(R)

0010985710 BIOSIS NO.: 199799619770

Crude oil hydrocarbon bioremediation and soil ecotoxicity assessment
AUTHOR: Salanitro Joseph P (Reprint); Dorn Philip B; Huesemann Michael H; Moore Keith O; Rhodes Ileana A; Rice-Jackson Lesa M; Vipond Tim E; Western Margaret M; Wisniewski Halina L
AUTHOR ADDRESS: Shell Development Co., Westhollow Technology Cent., P.O. Box 1380, Houston, TX 77251-1380, USA
JOURNAL: Environmental Science and Technology 31 (6): p1769-1776 1997
ISSN: 0013-936X DOCUMENT TYPE: Article

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DIALOG(R)File 10:AGRICOLA
(c) format only 2004 The Dialog Corporation. All rts. reserv.
4159584 43638473 Holding Library: AGL

Bacterial succession in a petroleum land treatment unit
Kaplan, C.W. Kitts, C.L.
Applied and environmental microbiology. 2004 Mar., v. 70, no. 3 p. 1777-1786. ISSN: 0099-2240

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3842802 22060225 Holding Library: AGL

Prediction of ecotoxicity of hydrocarbon-contaminated soils using physicochemical parameters
Wong, D.C.L. Chai, E.Y.; Chu, K.K.; Dorn, P.B.
Pensacola, Fla. : SETAC Press.
Environmental toxicology and chemistry / Nov 1999. v. 18 (11) p. 2611-2621.
ISSN: 0730-7268

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DIALOG(R)File 63:Transport Res(TRIS)
(c) fmt only 2004 Dialog Corp. All rts. reserv.
00821103 DA

TITLE: MANAGING PETROLEUM CONTAMINATED SOIL: DEPARTMENT OF TRANSPORTATION PERSPECTIVE
AUTHOR(S): Kamnikar, B
CORPORATE SOURCE: American Society of Civil Engineers, 1801 Alexander Bell Drive , Reston, VA, 20191-4400,
JOURNAL: Journal of Environmental Engineering Vol: 127 Issue Number: 12 Pag: 9p
SUPPLEMENTAL NOTES: Page range: pp 1080-1088.
PUBLICATION YEAR: 2001
ISSN: 07339372

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02814991 2004292121

Effects of soil types on the biodegradation of crude oil by Nocardia sp. H17-1
Baek K.-H.; Kim H.-S.; Moon S.-H.; Lee I.-S.; Oh H.-M.; Yoon B.-D.
ADDRESS: B.-D. Yoon, Environmental Biotechnology Lab., Korea Inst. of Biosci./Biotechnology, Daejeon 305-333, South Korea
EMAIL: bdyoon@kribb.re.kr
Journal: Journal of Microbiology and Biotechnology, 14/5 (901-905), 2004, South Korea
ISSN: 1017-7825 DOCUMENT TYPE: Article

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02803051 2004280121

The effects of perennial ryegrass and alfalfa on microbial abundance and diversity in petroleum contaminated soil
Kirk J.L.; Klironomos J.N.; Lee H.; Trevors J.T.
EMAIL: jtrevors@uoguelph.ca
Journal: Environmental Pollution, 133/3 (455-465), 2005, United Kingdom
ISSN: 0269-7491 DOCUMENT TYPE: Article

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02792584 2004268480
Spectroscopic determination of poly-aromatic compounds in petroleum contaminated soils
Gomez R.S.G.; Pandiyan T.; Iris V.E.A.; Luna-Pabello V.; De Bazua C.D.
EMAIL: pandiyan@servidor.unam.mx
Journal: Water, Air, and Soil Pollution, 158/1 (137-151), 2004, Netherlands
ISSN: 0049-6979 DOCUMENT TYPE: Article

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02731406 2004208424

Fertilization and bioaugmentation for oil biodegradation in salt marsh mesocosms
Wright A.L.; Weaver R.W.
EMAIL: awright@ag.tamu.edu
Journal: Water, Air, and Soil Pollution, 156/1 (229-240), 2004, Netherlands
ISSN: 0049-6979 DOCUMENT TYPE: Article

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02627455 2004105789

Laboratory-scale bioremediation experiments on hydrocarbon-contaminated soils
Sabate J.; Vin(tilde)as M.; Solanas A.M.
ADDRESS: A.M. Solanas, Department of Microbiology, Faculty of Biology, University of Barcelona, Diagonal 645, E-08028 Barcelona, Spain
EMAIL: asolanas@ub.edu
Journal: International Biodeterioration and Biodegradation, 54/1 (19-25), 2004, United Kingdom
ISSN: 0964-8305 DOCUMENT TYPE: Article

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Degradation of Crude Oil in the Rhizosphere of Sorghum bicolor
Banks M.K.; Kulakow P.; Schwab A.P.; Chen Z.; Rathbone K.
ADDRESS: M.K. Banks, Civil Engineering, CIVL, Purdue University, West Lafayette, IN 47907
Journal: International Journal of Phytoremediation, 5/3 (225-234), 2003, United States
ISSN: 1522-6514 DOCUMENT TYPE: Article

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Influence of Organic and Inorganic Soil Amendments on Plant Growth in Crude Oil-Contaminated Soil
White Jr. P.M.; Wolf D.C.; Thoma G.J.; Reynolds C.M.
ADDRESS: P.M. White Jr., Department of Agronomy, Kansas State University, 2004 Throckmorton Plant Sci. Center, Manhattan, KS 66506, United States
EMAIL: pmwhite@ksu.edu
Journal: International Journal of Phytoremediation, 5/4 (381-397), 2003, United States
ISSN: 1522-6514 DOCUMENT TYPE: Article

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02397377 2003181076

Accelerated biodegradation of petroleum hydrocarbon waste
Ward O.; Singh A.; Van Hamme J.
ADDRESS: O. Ward, Department of Biology, University of Waterloo, Waterloo, Ont. N2L 3G1, Canada
EMAIL: opward@sciborg.uwaterloo.ca
Journal: Journal of Industrial Microbiology and Biotechnology, 30/5 (260-270), 2003, United Kingdom
PUBLICATION DATE: May 1, 2003
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Fenton's reagent-based in situ chemical oxidation treatment of saturated and unsaturated soils at a historic railroad site
Vitolins A.R.; Nelson B.R.; Underhill S.A.; Thomas L.M.H.
ADDRESS: A.R. Vitolins, Malcolm Pirnie, Inc., 15 Cornell Road, Latham, NY, United States
Journal: Soil and Sediment Contamination, 12/1 (139-150), 2003, United States
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02366481 2003150166

Soil and water contamination levels in an out-of-service oil distribution and storage station in Michoacan, Mexico
Iturbe R.; Flores R.M.; Torres L.G.
ADDRESS: R. Iturbe, Univ. Nacional Autonoma de Mexico, Instituto de Ingenieria, Grupo Saneamiento Suelos Acuiferos, Apartado Postal 70-472, Coyoacan 04510 Mexico, D.F., Mexico
EMAIL: ria@pumas.iingen.unam.mx
Journal: Water, Air, and Soil Pollution, 146/1-4 (261-281), 2003, Netherlands
ISSN: 0049-6979 DOCUMENT TYPE: Article

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02360720 2003144405

Characterization of hydrocarbon-degrading microbial populations in contaminated and pristine Alpine soils
Margesin R.; Labbe D.; Schinner F.; Greer C.W.; Whyte L.G.
ADDRESS: R. Margesin, Institute of Microbiology, University of Innsbruck, Technikerstrasse 25, A-6020 Innsbruck, Austria
EMAIL: rosa.margesin@uibk.ac.at
Journal: Applied and Environmental Microbiology, 69/6 (3085-3092), 2003, United States
PUBLICATION DATE: June 1, 2003
ISSN: 0099-2240 DOCUMENT TYPE: Article

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02287878 2003070114

Evaluation of genetic diversity among Pseudomonas citronellolis strains isolated from oily sludge-contaminated sites
Bhattacharya D.; Sarma P.M.; Krishnan S.; Mishra S.; Lal B.
ADDRESS: B. Lal, Ctr. of Bioresources/Biotechnology, TERI School of Advanced Studies, Habitat Place, Lodhi Road, New Delhi 110003, India
EMAIL: banwaril@teri.res.in
Journal: Applied and Environmental Microbiology, 69/3 (1435-1441), 2003, United States
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DIALOG(R)File 71:ELSEVIER BIOBASE

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Comparison of modern extraction techniques in analysis of soil contaminated with fuel and crude oil spills
Ventura K.; Adam M.; Dostalek J.
ADDRESS: K. Ventura, Department of Analytical Chemistry, Faculty of Chemical Technology, University of Pardubice, 532 10 Pardubice, Czech Republic
EMAIL: karel.ventura@upce.cz
Journal: Journal of Liquid Chromatography and Related Technologies, 26/2 (247-259), 2003, United States
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02173215 2002253298

Field-scale bioremediation of soil contaminated with crude oil
Li P.; Sun T.; Stagnitti F.; Zhang C.; Zhang H.; Xiong X.; Allinson G.; Ma X.; Allinson M.
ADDRESS: F. Stagnitti, School of Ecology and Environment, Deakin University, P.O. Box 423, Warnambool, Vic. 3280, Australia
EMAIL: frankst@deakin.edu.au
Journal: Environmental Engineering Science, 19/5 (277-289), 2002, United States
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02081421 2002161874

Effects of earthworm (Eisenia fetida) and wheat (Triticum aestivum) straw additions on selected properties of petroleum-contaminated soils
Callaham Jr. M.A.; Stewart A.J.; Alarcon C.; McMillen S.J.
ADDRESS: M.A. Callaham Jr., USDA Forest Service, 233 Lehotsky Hall, Clemson University, Clemson, SC 29634, United States
EMAIL: mcallaham@fs.fed.us
Journal: Environmental Toxicology and Chemistry, 21/8 (1658-1663), 2002, United States
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Earthworm survival in oil contaminated soil
Shakir Hanna S.H.; Weaver R.W.
ADDRESS: R.W. Weaver, Department of Soil Science, Texas A and M University, College Station, TX 77843, United States
EMAIL: rw-weaver@tamu.edu
Journal: Plant and Soil, 240/1 (127-132), 2002, Netherlands
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Characterization and FATE of PAH-contaminated sediments at the wyckoff/eagle harbor superfund site
Brenner R.C.; Magar V.S.; Ickes J.A.; Abbott J.E.; Stout S.A.; Crecelius E.A.; Bingler L.S.
ADDRESS: R.C. Brenner, U.S. Environ. Protection Agency, Natl. Risk Management Research Lab., 26 West Martin Luther King Drive, Cincinnati, OH 45268, United States
EMAIL: brenner.richard@epa.gov
Journal: Environmental Science and Technology, 36/12 (2605-2613), 2002, United States
PUBLICATION DATE: June 15, 2002
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01984846 2002065796

Evaluation of gastrointestinal solubilization of petroleum hydrocarbon residues in soil using an in vitro physiologically based model
Holman H.-Y.N.; Goth-Goldstein R.; Aston D.; Yun M.; Kengsoontra J.
ADDRESS: H.-Y.N. Holman, E.O. Lawrence Berkeley Natl. Lab., 1 Cyclotron Road, Berkeley, CA 94720, United States
EMAIL: hyholman@lbl.gov
Journal: Environmental Science and Technology, 36/6 (1281-1286), 2002, United States
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01974933 2002055160

A comparison of spectrophotometric and gas chromatographic measurements of heavy petroleum products in soil samples
Nadim F.; Liu S.; Hoag G.E.; Chen J.; Carley R.J.; Zack P.
ADDRESS: F. Nadim, University of Connecticut, The Environmental Research Institute, 270 Middle Turnpike, Storrs, CT 06269, United States
EMAIL: farhad.nadim@po.state.ct.us
Journal: Water, Air, and Soil Pollution, 134/1-4 (97-109), 2002, Netherlands
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01956455 2002037405

Leachability and toxicity of hydrocarbons, metals and salt contamination from flare pit soil
Cook S.V.; Chu A.; Goodman R.H.
ADDRESS: A. Chu, Department of Civil Engineering, University of Calgary, Calgary, Alta., Canada
EMAIL: achu@ucalgary.ca
Journal: Water, Air, and Soil Pollution, 133/1-4 (297-314), 2002, Netherlands
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01924606 2002005556

Feasibility of fungi bioaugmentation in composting a flare pit soil
Baheri H.; Meysami P.
ADDRESS: H. Baheri, Department of Chemical Engineering, University of Calgary, Calgary, AB T2N 1N4, Canada
EMAIL: baheri@ucalgary.ca
Journal: Journal of Hazardous Materials, 89/2-3 (279-286), 2002, Netherlands
PUBLICATION DATE: January 28, 2002
ISSN: 0304-3894 DOCUMENT TYPE: Article

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01922391 2002003353

Co-composting of residual fuel contamination in soil
Guerin T.F.
ADDRESS: T.F. Guerin, Shell Engineering Pty Ltd, NSW State Office, PO Box 26, Granville, NSW 2142, Australia
EMAIL: turlough.guerin@bigpond.com
Journal: Soil and Sediment Contamination, 10/6 (659-673), 2001, United States
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01922388 2002003350

Variation in petroleum hydrocarbon chain lengths with depth at a former crude oil and natural gas production facility
Reid D.A.; Wellman D.E.; Ulery A.L.; Jones S.
ADDRESS: D.A. Reid, Komex H2O Science, 5401 Business Park South, Bakersfield, CA 93309, United States
Journal: Soil and Sediment Contamination, 10/6 (593-609), 2001, United States
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01913079 2001278400

Naked amoebas and bacteria in an oil-impacted salt marsh community
Anderson O.R.; Gorrell T.; Bergen A.; Kruzansky R.; Levandowsky M.
ADDRESS: M. Levandowsky, Haskins Laboratories, Pace University, New York, NY 10038, United States
EMAIL: mlevandowsky@pace.edu
Journal: Microbial Ecology, 42/3 (474-481), 2001, United States
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01913060 2001278381

Monitoring the size and metabolic activity of the bacterial community during biostimulation of fuel-contaminated soil using competitive PCR and RT-PCR
Ka J.O.; Yu Z.; Mohn W.W.
ADDRESS: W.W. Mohn, Department of Microbiology, University of British Columbia, Vancouver, BC, Canada
EMAIL: wmohn@interchange.ubc.ca
Journal: Microbial Ecology, 42/3 (267-273), 2001, United States
ISSN: 0095-3628 DOCUMENT TYPE: Article

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01875370 2001237304

In situ bioremediation potential of an oily sludge-degrading bacterial consortium
Mishra S.; Jyot J.; Kuhad R.C.; Lal B.
ADDRESS: B. Lal, Tata Energy Research Institute, New Delhi 110 003, India
EMAIL: banwaril@teri.res.in
Journal: Current Microbiology, 43/5 (328-335), 2001, United States
ISSN: 0343-8651 DOCUMENT TYPE: Article

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DIALOG(R)File 71:ELSEVIER BIOBASE

01870181 2001235918

Prediction of petroleum hydrocarbon bioavailability in contaminated soils and sediments
Cuypers C.; Clemens R.; Grotenhuis T.; Rulkens W.
ADDRESS: C. Cuypers, Dept. of Environmental Technology, Wageningen University, P.O. Box 8129, 6700 EV Wageningen, Netherlands
EMAIL: Chiel.Cuypers@algemeen.mt.wau.nl
Journal: Soil and Sediment Contamination, 10/5 (459-482), 2001, United States
ISSN: 1058-8337 DOCUMENT TYPE: Article

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01852627 2001210700

Phytoremediation of aged petroleum sludge: Effect of irrigation techniques and scheduling
Hutchinson S.L.; Schwab A.P.; Banks M.K.
ADDRESS: A.P. Schwab, Agronomy Department, Purdue Univ., 1150 Lily Hall of Life Sciences, West Lafayette, IN 47907-1150, United States
EMAIL: pschwab@purdue.edu
Journal: Journal of Environmental Quality, 30/5 (1516-1522), 2001, United States
ISSN: 0047-2425 DOCUMENT TYPE: Article

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01844874 2001206777

Chemical contamination and toxicity of sediment from a coastal area receiving industrial effluents in Kuwait
Beg M.U.; Al-Muzaini S.; Saeed T.; Jacob P.G.; Beg K.R.; Al-Bahloul M.; Al-Matrouk K.; Al-Obaid T.; Kurian A.
ADDRESS: M.U. Beg, Environmental Sciences Department, Kuwait Inst. for Scientific Research, P.O. Box 24885, Safat-13109, Kuwait
EMAIL: mbeg@safat.kisr.edu.kw
Journal: Archives of Environmental Contamination and Toxicology, 41/3 (289-297), 2001, United States
ISSN: 0090-4341 DOCUMENT TYPE: Article

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01692868 2001065837

Effect of compost in phytoremediation of diesel-contaminated soils
Vouillamoz J.; Milke M.W.
ADDRESS: J. Vouillamoz, Winterhur International, Environmental Technical Service, PO Box 286, CH-8401 Winterthur, Switzerland
Journal: Water Science and Technology, 43/2 (291-295), 2001, United Kingdom
ISSN: 0273-1223 DOCUMENT TYPE: Conference Paper

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01691709 2001064678

An evaluation of field total petroleum hydrocarbon (TPH) systems
Lambert P.; Fingas M.; Goldthorp M.
ADDRESS: P. Lambert, Emergencies Science Division, Environment Canada, Ottawa, Ont. K1A 0H3, Canada
EMAIL: lambert.patrick@etc.ec.gc.ca
Journal: Journal of Hazardous Materials, 83/1-2 (65-81), 2001, Netherlands
PUBLICATION DATE: May 7, 2001
ISSN: 0304-3894 DOCUMENT TYPE: Article

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01648884 2001026340

Screening plant species for growth on weathered, petroleum hydrocarbon-contaminated sediments
Kulakow P.A.; Schwab A.P.; Banks M.K.
ADDRESS: P.A. Kulakow, Department of Agronomy, 2004 Throckmorton Plant Sci. Center, Kansas State University, Manhattan, KS 66506-5501, United States
Journal: International Journal of Phytoremediation, 2/4 (297-317), 2000, United States
ISSN: 1522-6514 DOCUMENT TYPE: Article

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01579017 2000239372

Plants-associated microflora and the remediation of oil-contaminated soil
Yateem A.; Balba M.T.; El-Nawawy A.S.; Al-Awadhi N.
ADDRESS: A. Yateem, Kuwait Inst. For Scientific Research, P.O. Box 24885, Safat 13109, Kuwait
EMAIL: ayateem@safat.kisr.edu.kw
Journal: International Journal of Phytoremediation, 2/3 (183-191), 2000, United States
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01572428 2000231957

Persistence of oiling in mussel beds after the Exxon Valdez oil spill
Carls M.G.; Babcock M.M.; Harris P.M.; Irvine G.V.; Cusick J.A.; Rice S.D.
ADDRESS: M.G. Carls, National Marine Fisheries Service, Auke Bay Laboratory, 11305 Glacier Highway, Juneau, AK 99801, United States
Journal: Marine Environmental Research, 51/2 (167-190), 2001, United Kingdom
ISSN: 0141-1136 DOCUMENT TYPE: Article

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01487587 2000162854

Restoration of a Spartina alterniflora salt marsh following a fuel oil spill, New York City, NY
Bergen A.; Alderson C.; Bergfors R.; Aquila C.; Matsil M.A.
ADDRESS: A. Bergen, Salt Marsh Restoration Team, Natural Resources Group, New York City Parks, 1234 Fifth Avenue, New York, NY 10029, United States
EMAIL: abergen@prodigy.net
Journal: Wetlands Ecology and Management, 8/2-3 (185-195), 2000, Netherlands ISSN: 0923-4861 DOCUMENT TYPE: Article

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01430163 2000105993

Monitoring biodegradation of creosote in soils using radiolabels, toxicity tests, and chemical analysis
Phillips T.M.; Seech A.G.; Liu D.; Lee H.; Trevors J.T.
ADDRESS: H. Lee, Department of Environmental Biology, University of Guelph, Guelph, Ont. N1G 2W1, Canada
EMAIL: hlee@uoguelph.ca
Journal: Environmental Toxicology, 15/2 (99-106), 2000, United States
ISSN: 1520-4081 DOCUMENT TYPE: Article

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DIALOG(R)File 71:ELSEVIER BIOBASE

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Influence of petroleum hydrocarbon contamination on microalgae and microbial activities in a long-term contaminated soil
Megharaj M.; Singleton I.; McClure N.C.; Naidu R.
ADDRESS: M. Megharaj, CSIRO Land and Water, Glen Osmond, SA 5064, Australia
Journal: Archives of Environmental Contamination and Toxicology, 38/4 (439-445), 2000, United States
ISSN: 0090-4341 DOCUMENT TYPE: Article

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DIALOG(R)File 71:ELSEVIER BIOBASE

01233697 1999210580

A bench-scale investigation of land treatment of soil contaminated with diesel fuel
Taylor C.; Viraraghavan T.
ADDRESS: C. Taylor, AGRA Earth and Environmental Limited, Regina, Sask., Canada
Journal: Chemosphere, 39/10 (1583-1593), 1999, United Kingdom
ISSN: 0045-6535 DOCUMENT TYPE: Article

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01217917 1999193904

Acute toxicity of estuarine wetland sediments contaminated by petroleum
Mueller D.C.; Bonner J.S.; McDonald S.J.; Autenrieth R.L.
ADDRESS: J.S. Bonner, Texas A and M University, Civil Engineering Department, Environm. Ocean Water Res. Engn., College Station, TX 77843-3136, United States
Journal: Environmental Technology, 20/8 (875-882), 1999, United Kingdom
ISSN: 0959-3330 DOCUMENT TYPE: Article

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01162139 1999131736

Extraction of petroleum hydrocarbons from soil by mechanical shaking
Schwab A.P.; Su J.; Wetzel S.; Pekarek S.; Banks M.K.
ADDRESS: M.K. Banks, Envtl. and Hydraulic Engineering, 1284 Civil Engineering Building, Purdue University, West Lafayette, IN 47907-1284, United States
EMAIL: kbanks@ecn.purdue.edu
Journal: Environmental Science and Technology, 33/11 (1940-1945), 1999, United States
ISSN: 0013-936X DOCUMENT TYPE: Article

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01112601 1999076418

Lead and petroleum hydrocarbon changes in an urban wetland receiving stormwater runoff
Thurston K.A.
ADDRESS: K.A. Thurston, O'Brien and Gere Engineers, Inc., 5000 Brittonfield Parkway, East Syracuse, NY 13221, United States
EMAIL: thurstka@HOTMAIL.COM
Journal: Ecological Engineering, 12/3-4 (387-399), 1999, Netherlands
ISSN: 0925-8574 DOCUMENT TYPE: Article

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01085874 1998066424

Use of a risk-based hydrogeologic model to set remedial goals for PCBs, PAHs, and TPH in soils during redevelopment of an industrial site
Pascoe G.A.; Riley M.J.; Floyd T.A.; Gould C.L.
ADDRESS: G.A. Pascoe, EA Eng., Science/Technology, Inc., 1756 114th Avenue SE, Bellevue, WA 98004, United States
EMAIL: gp@eaest.com
Journal: Environmental Science and Technology, 32/6 (813-820), 1998, United States
PUBLICATION DATE: March 15, 1998
ISSN: 0013-936X DOCUMENT TYPE: Article

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Treatment of petroleum-contaminated soils using iron mineral catalyzed hydrogen peroxide
Kong S.-H.; Watts R.J.; Choi J.-H.
ADDRESS: S.-H. Kong, Department of Chemical Engineering, Hanyang University, Seoul, 133-791, South Korea
Journal: Chemosphere, 37/8 (1473-1482), 1998, United Kingdom
ISSN: 0045-6535 DOCUMENT TYPE: Article

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Comparison of toxicity detected by five bioassays during bioremediation of diesel fuel-spiked soils
Marwood T.M.; Knoke K.; Yau K.; Lee H.; Trevors J.T.; Suchorski-Tremblay A.; Flemming C.A.; Hodge V.; Liu D.L.; Seech A.G.
ADDRESS: J.T. Trevors, Department of Environmental Biology, University of Guelph, Guelph, Ont. N1G 2W1, Canada
EMAIL: jtrevors@uoguelph.ca
Journal: Environmental Toxicology and Water Quality, 13/2 (117-126), 1998, United States
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Degradation of tetraethyllead during the degradation of leaded gasoline hydrocarbons in soil
Mulroy P.T.; Ou L.-T.
ADDRESS: L.-T. Ou, Soil and Water Science Department, University of Florida, Gainesville, FL 32611, United States
EMAIL: lto@gnv.ifas.ufl.edu
Journal: Environmental Toxicology and Chemistry, 17/5 (777-782), 1998, United States
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White rot fungi and their role in remediating oil-contaminated soil
Yateem A.; Balba M.T.; Al-Awadhi N.; El-Nawawy A.S.
ADDRESS: A. Yateem, Kuwait Inst. for Scientific Research, Safat 13109, Kuwait
Journal: Environment International, 24/1-2 (181-187), 1998, United Kingdom
ISSN: 0160-4120 DOCUMENT TYPE: Conference Paper

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Bioremediation of oil-contaminated desert soil : The Kuwaiti experience
Balba M.T.; Al-Daher R.; Al-Awadhi N.; Chino H.; Tsuji H.
ADDRESS: M.T. Balba, Kuwait Inst. for Scientific Research, Biotechnology Department, Safat 13109, Kuwait
Journal: Environment International, 24/1-2 (163-173), 1998, United Kingdom
PUBLICATION DATE: 19980000
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00776592 1998012278

Hydrocarbon distributions in sediments of the open area of the Arabian Gulf following the 1991 Gulf War oil spill
Al-Lihaibi S.S.; Ghazi S.J.
ADDRESS: S.S. Al-Lihaibi, Marine Chemistry Department, Faculty of Marine Science, Abdulaziz University, PO Box 1540, Jeddah 21441, Saudi Arabia
Journal: Marine Pollution Bulletin, 34/11 (941-948), 1997, United Kingdom
PUBLICATION DATE: 19970000
ISSN: 0025-326X DOCUMENT TYPE: Article

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Determination of total petroleum hydrocarbons in soil by on-line supercritical fluid extraction-infrared spectroscopy using a fiberoptic transmission cell and a simple filter spectrometer
Current R.W.; Tilotta D.C.
ADDRESS: D.C. Tilotta, Department of Chemistry, University of North Dakota, P.O. Box 9024, Grand Forks, ND 58202, United States
Journal: Journal of Chromatography A, 785/1-2 (269-277), 1997, Netherlands
ISSN: 0021-9673 DOCUMENT TYPE: Article

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Effects of a crude oil spill on the benthic invertebrate community in the Gasconade River, Missouri
Poulton B.C.; Finger S.E.; Humphrey S.A.
ADDRESS: B.C. Poulton, National Biological Service, Midwest Science Center, 4200 New Haven Road, Columbia, MO 65201, United States
Journal: Archives of Environmental Contamination and Toxicology, 33/3 (268-276), 1997, United States
ISSN: 0090-4341 DOCUMENT TYPE: Article

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00754107 97260736

Optimization of SFE conditions for the removal of diesel fuel
Lee C.M.; Gongaware D.F.
ADDRESS: C.M. Lee, Environmental Systems Engineering, Clemson University, Clemson, SC 29634-0919, United States
Journal: Environmental Technology, 18/11 (1157-1161), 1997, United Kingdom
ISSN: 0959-3330 DOCUMENT TYPE: Article

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Bottom sediments of the Arabian Gulf - II. TPH and TOC contents as indicators of oil pollution and implications for the effect and fate of the Kuwait oil slick
Massoud M.S.; Al-Abdali F.; Al-Ghadban A.N.; Al-Sarawi M.
ADDRESS: M.S. Massoud, Geology Department, College of Science, Kuwait University, PO Box 5969, 13060, Safat, Kuwait
Journal: Environmental Pollution, 93/3 (271-284), 1996, United Kingdom
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Effects of substrate mineralogy on the biodegradability of fuel components
Apitz S.E.; Meyers-Schulte K.J.
ADDRESS: S.E. Apitz, Remediation Research Laboratory, Control/Ocean Surveillance Center, RDTED, San Diego, CA 92152, United States
Journal: Environmental Toxicology and Chemistry, 15/11 (1883-1893), 1996, United States
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Bioslurry treatment of a soil contaminated with low concentrations of total petroleum hydrocarbons
Zappi M.E.; Rogers B.A.; Teeter C.L.; Gunnison D.; Bajpai R.
ADDRESS: R. Bajpai, Department of Chemical Engineering, University of Missouri-Columbia, W2030 Engineering Building East, Columbia, MO 65211, United States
Journal: Journal of Hazardous Materials, 46/1 (1-12), 1996, Netherlands
ISSN: 0304-3894 DOCUMENT TYPE: Article

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Predictive model for estimating the extent of petroleum hydrocarbon biodegradation in contaminated soils
Huesemann M.H.
ADDRESS: M.H. Huesemann, Battelle, Pacific Northwest Laboratories, Richland, WA 99352, United States
Journal: Environmental Science and Technology, 29/1 (7-18), 1995, United States
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Comparison of sorbent and solvent trapping after supercritical fluid extraction of volatile petroleum hydrocarbons from soil
Yang Y.; Hawthorne S.B.; Miller D.J.
ADDRESS: S.B. Hawthorne, Energy/Environmental Research Center, University of North Dakota, Campus Box 9018, Grand Forks, ND 58202, United States
Journal: Journal of Chromatography A, 699/1-2 (265-276), 1995, Netherlands
ISSN: 0021-9673 DOCUMENT TYPE: Article

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DIALOG(R)File 89:GeoRef

02092756 GEOREF: 96-57673

TITLE: Risk assessment for total petroleum hydrocarbons
AUTHOR(S): Heath, Jenifer S.; Koblis, Kristin; Sager, Shawn L.; Day, Christopher
CORPORATE SOURCE: Woodward-Clyde Consultants, Denver, CO, United States
CORPORATE SOURCE: ; Geraghty & Miller, United States
MONOGRAPH TITLE: Hydrocarbon contaminated soils ; Volume III, Perspectives analysis/site assessment, human health risk assessment, remediation, ecological risk assessment , environmental fate, and exposure, regulatory
EDITOR(S): Calabrese, Edward J.; Kostecki, Paul T.
CORPORATE SOURCE: University of Massachusetts, School of Public Health, Amherst, MA, United States
PUBLISHER: Lewis Publishers, Boca Raton, FL, United States p. 267-301
DATE: 1993 ISBN: 1-56670-018-3

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04355002 CANM-98-002661; EDB-98-115417

Title: An evaluation of the use of soil and sediment bioassays in the assessment of three contaminated sites in Atlantic Canada
Author(s): Carter, J. A.; Mroz, R. E.; Tay, K. L. (Environment Canada, Dartmouth, NS (Canada). Environmental Protection Service); Doe, K. G. (Environment Canada, Environmental Conservation Branch, Moncton, NB (Canada))
Source: Water Quality Research Journal of Canada v 33:2. p 295-317
ISSN: 1201-3080

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04261824 EDB-98-022239

Title: Determination of risk-based, site-specific cleanup levels for an industrial site in Seattle, Washington
Author(s): Birkner, P.D.; Gaulke, S.W.; Tirao, A.C.; Veilleux, A.L. (Shannon Wilson, Inc., Seattle, WA (United States))
Title: Proceedings of the 1997 petroleum hydrocarbons organic chemicals in ground water: Prevention, detection, and remediation
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Conference Location: Houston, TX (United States) Conference Date: 12-14 Nov 1997
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p 625-639 (811 p)

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04261822 EDB-98-022237

Title: Risk-based remediation of vadose zone soils : A case study of hydrocarbon source reduction using innovative soil venting and vapor treatment technologies to achieve corrective action goals
Author(s): Watkins, S.G.; Malone, D.R. (Parsons Engineering Science, Inc., Cary, NC (United States)); Downey, D.C. (Parsons Engineering Science, Inc., Denver, CO (United States)) (and others)
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p 329-345 (811 p)

70
DIALOG(R)File 103:Energy SciTec

04151216 EDB-97-059920

Title: Partnership in an application of RBCA: Case study for quantitative assessment of total petroleum hydrocarbons
Author(s): Srinivasan, K.; Shepherd, D. (Woodward-Clyde Consultants, Baton Rouge, LA (United States))
Title: SETAC 17. annual meeting -- Abstract book. Partnerships for the environment: Science, education, and policy
Conference Title: 17. annual meeting of the Society of Environmental Toxicology and Chemistry: partnerships for the environment - science, education, and policy
Conference Location: Washington, DC (United States) Conference Date: 17-21 Nov 1996
Publisher: Pensacola, FL (United States) Society of Environmental Toxicology and Chemistry
ISSN: 1087-8939 p 65-66 (378 p)

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DIALOG(R)File 103:Energy SciTec

04144903 EDB-97-053607

Title: Ecological risk assessment of protected species at a military installation
Author(s): Jones, M.L.; Faulk, S.T. (Foster Wheeler Environmental Corp., Denver, CO (United States)); Lukin, C.; Kochel, M.J. (Foster Wheeler Environmental Corp., Bellevue, WA (United States))
Title: SETAC 17. annual meeting -- Abstract book. Partnerships for the environment: Science, education, and policy
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ISSN: 1087-8939 p 252-253 (378 p)

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04144882 EDB-97-053586

Title: Uptake of selected organics and metals by terrestrial vegetation and insects at a site in Arizona
Author(s): Day, C.H. (Geraghty and Miller, Inc., Houston, TX (United States)); Ayers, T.A.; Ellingson, S.B. (Geraghty and Miller, Raleigh, NC (United States)); Braddy, L. (Geraghty and Miller, Phoenix, AZ (United States))
Title: SETAC 17. annual meeting -- Abstract book. Partnerships for the environment: Science, education, and policy
Conference Title: 17. annual meeting of the Society of Environmental Toxicology and Chemistry: partnerships for the environment - science, education, and policy
Conference Location: Washington, DC (United States) Conference Date: 17-21 Nov 1996
Publisher: Pensacola, FL (United States) Society of Environmental Toxicology and Chemistry
ISSN: 1087-8939
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04139260 EDB-97-047964

Title: Biological quality of soils containing hydrocarbons and efficacy of ecological risk reduction by bioremediation alternatives
Author(s): Stewart, A.J.; Napolitano, G.E.; Sample, B.E.
Title: Fossil Energy Program annual progress report for April 1995--March 1996
Corporate Source: Oak Ridge National Lab., TN (United States)
Publication Date: Jun 1996
p 223-230 (282 p)
Report Number(s): ORNL-6902

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DIALOG(R)File 103:Energy SciTec

04057178 EDB-96-140938

Title: Development of a health-based total petroleum hydrocarbon (TPH) method
Author(s): Feniak, N.A.; Sigal, E.A.; Miller, P.A.; Willes, R.F. (CanTox Inc., Mississauga, Ontario (Canada)); Treissman, M.D. (CanTox Inc., Calgary, Alberta (Canada))
Title: Second SETAC world congress (16. annual meeting): Abstract book. Global environmental protection: Science, politics, and common sense
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Conference Location: Vancouver (Canada) Conference Date: 5-9 Nov 1995
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p 234 (378 p)
ISBN: 1-880611-03-1

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04020030 EDB-96-103790

Title: Investigation and monitoring of a petroleum hydrocarbon plume in the Blue Ridge Physiographic Province of southwestern Virginia
Author(s): Risner, A.C. (Delta Environmental Consultants, Inc., Charlotte, NC (United States))
Title: Hazardous and industrial wastes: Proceedings of the twenty-seventh Mid-Atlantic industrial waste conference
Author(s)/Editor(s): Sengupta, A.K. (ed.) (Lehigh Univ., Bethlehem, PA (United States))
Conference Title: 27. Mid-Atlantic industrial waste conference
Conference Location: Bethlehem, PA (United States) Conference Date: 9-12 Jul 1995
Publisher: Lancaster, PA (United States) Technomic Publishing Co., Inc.
ISSN: 1044-0631
p 700-711 (973 p)
ISBN: 1-56676-357-6

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DIALOG(R)File 103:Energy SciTec

03998005 EDB-96-081765

Title: Remediation of contaminated soils and sediments using Daramend bioremediation
Author(s): Burwell, S.W.; Bucens, P.G.; Seech, A.G.
Title: Vision 2001: Energy environmental engineering
Conference Title: 18. world energy engineering congress
Conference Location: Atlanta, GA (United States) Conference Date: 8-10 Nov 1995
Publisher: Atlanta, GA (United States) Association of Energy Engineers
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p 47-61 (638 p)

77 (From PubMed)

Environ Toxicol Chem. 2002 Jul;21(7):1438-50.

Comment in:
Environ Toxicol Chem. 2003 Nov;22(11):2539-40; author reply 2540-2.

Hydrocarbon composition and toxicity of sediments following the Exxon Valdez oil spill in Prince William Sound, Alaska, USA.

Page DS, Boehm PD, Stubblefield WA, Parker KR, Gilfillan ES, Neff JM, Maki AW.
Bowdoin College, Chemistry Department, Brunswick, Maine 04011-8466, USA.
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An 1-year study of the 1989 Exxon Valdez oil spill found that spill residues on the oiled shorelines rapidly lost toxicity through weathering. After 1990, toxicity of sediments remained at only a few heavily oiled, isolated locations in Prince William Sound (AK, USA), as measured by a standard amphipod bioassay using Rhepoxynius abronius. Data from 648 sediment samples taken during the 1990 to 1993 period were statistically analyzed to determine the relationship between the total concentration of 39 parent and methyl-substituted polycyclic aromatic hydrocarbons (defined as total polycyclic aromatic hydrocarbons [TPAH]) and amphipod mortality and the effect of oil weathering on toxicity. A logistic regression model yielded estimates of the lower threshold, LC10 (lethal concentration to 10% of the population), and LC50 (median lethal concentration) values of 2,600, 4,100, and 10,750 ng/g TPAH (dry wt), respectively. Estimates of the threshold and LC50 values in this field study relate well to corresponding sediment quality guideline (SQG) values reported in the literature. For sediment TPAH concentrations >2,600 ng/g, samples with high mortality values (>90%) had relatively high fractions of naphthalenes and those with low mortality (<20%) had relatively high fractions of chrysenes. By 1999, the median sediment TPAH concentration of 117 ng/g for the post-1989 worst-case sites studied were well below the 2,600 ng/g toxicity threshold value, confirming the lack of potential for long-term toxic effects. Analysis of biological community structure parameters for sediment samples taken concurrently found that species richness and Shannon diversity decreased with increasing TPAH above the 2,600 ng/g threshold, demonstrating a correspondence between sediment bioassay results and biological community effects in the field. The low probability of exposure to toxic concentrations of weathered spill residues at the worst-case sites sampled in this study is consistent with the rapid overall recovery of shoreline biota observed in 1990 to 1991.

PMID: 12109744 [PubMed - indexed for MEDLINE]

78 (From PubMed)

Microb Ecol. 1998 Nov;36(3):349-361.

Assessment of the Microbiological Potential for the Natural Attenuation of Petroleum Hydrocarbons in a Shallow Aquifer System.

Stapleton RD, Sayler GS.

Department of Ecology and Evolutionary Biology, Center for Environmental Biotechnology, The University of Tennessee, Knoxville, Knoxville, TN 37996, USA

Abstract A multidisciplinary field study investigating the fate and transport of petroleum hydrocarbons commonly associated with jet-fuel contamination is currently underway at Columbus Air Force Base (AFB), Mississippi. Sixty sediment cores from 12 boreholes were recovered from the study aquifer. The goal of this initial sampling was to characterize the potential microbial activity using 14C-labeled substrates, as well as the presence, abundance, and distribution of specific hydrocarbon degrading genotypes using DNA:DNA hybridization. Enumeration of total microbial abundance using a 16S rDNA universal oligonucleotide probe was compared to traditional enumeration methods. Total culturable populations determined by spread plate analysis ranged from a low of 10(4) to more than 10(6) organisms per gram sediment. Microbial abundance estimated by DNA hybridization studies with 16S rDNA genes ranged from 10(7) to 10(8) organisms per gram sediment. Molecular analysis of aquifer samples using DNA probes targeting genes encoding the degradative enzymes alkane hydroxylase (alkB), catechol 2,3-dioxygenase (nahH), naphthalene dioxygenase (nahA), toluene dioxygenase (todC1C2), toluene monooxygenase (tomA), and xylene monooxygenase (xylA), as well as two probes measuring methanogenic microorganisms, codh (carbon monoxide dehydrogenase) and mcr (methyl coenzyme reductase), revealed that each target gene sequence was present in nearly all 60 samples. The presence of organisms demonstrating the phenotype to degrade BTEX and naphthalene was further supported using mineralization assays with 14C-labeled benzene, toluene, naphthalene, and phenanthrene. Minimal activity occurred during the first 24 hours. After a period of 5-7 days, greater than 40% of the target compounds were mineralized in aquifer sediments.

PMID: 9852514 [PubMed - as supplied by publisher]

79 (From PubMed)

Ann Ist Super Sanita. 2002;38(2):143-7.

Ecotoxicological endpoints for contaminated site remediation.

Wilson JJ, Hatcher JF, Goudey JS.

HydroQual Laboratories Ltd, 3, 6125 12 Street S.E., T2H2K1, Calgary, Alberta, Canada. jjwilson@golder.com

Use of chemical criteria in assessing the potential for adverse toxic effects in contaminated sites can under or overestimate the necessary level of site cleanup required. The use of ecotoxicity testing provides a more direct assessment of adverse environmental impact. A multi-trophic level soil ecotoxicity assessment was done on soil contaminated with crude oil distilled into five different fractions based on hydrocarbon chain lengths. Results indicate that the fraction above C26 was not toxic to microbes, plants, and earthworms, when present in concentrations far above the 1000 mg/kg total petroleum hydrocarbon criterion. Our ecotoxicity test battery results indicate that weathered heavy crude oils can be much less toxic than lighter, freshly spilled diesel oils, yet using a gross measure of total petroleum hydrocarbons would not detect this differences.

PMID: 12387137 [PubMed - indexed for MEDLINE]

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Efroymson RA, Sample BE, Peterson MJ.

Ecotoxicity Test Data for Total Petroleum Hydrocarbons in Soil: Plants and Soil-Dwelling Invertebrates.

Human and Ecological Risk Assessment (2004 April); 10(2):207-231.

Author(s) Affiliation: Environmental Sciences Division, Oak Ridge National Laboratory.

No Abstract Available.