

JUN 28 2012

DEPARTMENT OF
WATER RESOURCES

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BEFORE THE DEPARTMENT OF WATER RESOURCES
OF THE STATE OF IDAHO

IN THE MATTER OF THE PETITION
DELIVERY CALL OF RANGEN, INC.'S
WATER RIGHT NOS. 36-02551 & 36-
7694

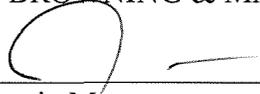
Docket No. CM-DC-2011-004

**RANGEN, INC.'S SUPPLEMENTAL
EXPERT WITNESS DISCLOSURE**

COMES NOW, Rangen, Inc. ("Petitioner"), by and through its counsel of record, J. Justin May of May, Browning & May, and submits the following Supplemental Expert Witness Disclosure. In addition to those expert witnesses previously identified by Rangen at the time of its Delivery Call, Rangen discloses that it intends to call Charlie E. Smith as an expert witness. Mr. Smith's Curriculum Vitae is attached hereto. Mr. Smith's opinions will be disclosed in accordance with the parties' scheduling agreement as Ordered by the Idaho Department of Water Resources.

DATED This 27 day of June, 2012.

MAY, BROWNING & MAY

By 

J. Justin May

CERTIFICATE OF SERVICE

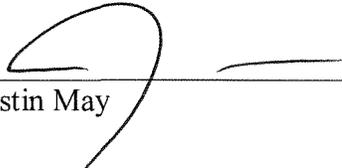
The undersigned, a resident attorney of the State of Idaho, hereby certifies that on the 27 day of June, 2012 he caused a true and correct copy of the foregoing document to be served upon the following by the indicated method:

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J. Justin May

BIOGRAPHICAL SKETCH

NAME: Charlie E. Smith

TITLE: Pathologist & Aquaculture Specialist

HOME & WORK ADDRESS: 715 SE 5th St, College Place, WA 99324

DAYTIME TELEPHONE: (509) 525-2564 Cell 406-920-0561

E-Mail: fishdoc1@q.com

EDUCATION: B.A. Biology, Walla Walla College. 1960.

Graduate studies Montana State University, 1968-1974.
Bacteriology, biochemistry, cell ultrastructure,
microbiology, pathology, immunology, immunopathology,
physiology,

POSITIONS HELD:

Pathologist & Aquaculture Specialist, Independent
Consultant, July, 2002 to present

Pathologist & Aquaculture Specialist, Rangen, Inc., Buhl,
ID July, 1993 to July, 2002

Director, U.S. Fish & Wildlife Service, Bozeman, MT
Fish Technology Center, 1985 to July, 1993.

Adjunct Professor Veterinary Science, Montana
State University, 1981-2009

Assistant Director , Bozeman FTC, 1976-1985.

Fishery Biologist, Bozeman FTC, 1968-1976.

Fishery Biologist, Western Fish Nutrition Lab, Cook, WA,
1961 - 1968

AWARDS:

Recipient of the Northwest Fish Culture Hall of Fame Award, December, 2005.

Recipient of the Outstanding Contribution to the Protection and Enhancement of Fisheries Resources in Montana Award by the Montana Chapter of the American Fisheries Society, February, 1994

Recipient of American Fisheries Society/Fish Health Section, S.F. Snieszko Distinguished Service Award. July, 1993.

Recipient of the American Fisheries Society/Fish Culture Section Hall of Fame Award, 1993.

Recipient of U.S. Fish & Wildlife Service, Region 6 Special Recognition Award, June, 1993

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES:

American Fisheries Society (AFS), Fish Culture Section, AFS; Fish Health Section, AFS & Physiology Section, AFS

Certified Fish Pathologist, Fish Health Section, AFS

President, Fish Health Section/AFS, 1990-91

Past Associate Editor, J. Aquatic Animal Health; also, The Progressive Fish Culturist

WESTERN REGIONAL AQUACULTURE CENTER:

Past Member, Research Technical Committee, WRAC

Served as Technical Advisor, Broodstock Nutrition Research Project.

SELECTED PUBLICATIONS: (1984-Present)

Bowker, J.D., D. Carty, C.E. Smith, & S.R. Bergen.. 2011 Chloramine – T margin-of-safety estimates for fry, fingerling, and juvenile rainbow trout. North American Journal of Aquaculture (In Press)

Barrows, F.T., T.G. Gaylord, W.M. Sealey, L. Porter & C.E. Smith. 2008. The effect of vitamin premix in extruded plant-based and fish meal based diets on growth efficiency and health of rainbow trout, *O. mykiss*. Aquaculture 283: 148-155.

Barrows, F.T., T.G. Gaylord, D.A.G. Stone, & C.E. Smith. 2008. Effect of protein source and nutrient density on growth efficiency, histology and plasma amino acid concentration of rainbow trout, *O. mykiss*. Aquaculture Research (In Press).

Sealey, W.M., F.T. Barrows C. E. Smith, K. Overturf, & S.E. LaPatra. 2008. Soybean meal level and probiotics in first feeding fry diets alter the ability of rainbow trout, *O. mykiss* to utilize high levels of soybean meal during grow out. Aquaculture Nutrition (In Press).

Taylor, P, Marilyn Blair & C. E. Smith. 2008. Cystic lesions in the liver of Juvenile white sturgeon. J. Aquatic Animal Health, In Press.

Money, D. J. and C.E. Smith. 2003. An Outbreak Of *Nucleospora salmonis* In Yellowstone Cutthroat Trout. Page 42 in Proceedings of the 44th Annual Western Fish Disease Workshop. (this was the first reported case of *N. salmonis* in Yellowstone cutthroat).

Taylor, P, Marilyn Blair & C. E. Smith. 2004. Cystic lesions in the liver of juvenile white sturgeon. Proceedings of the American Fisheries Society Fish Health Section 2004 Annual Meeting. July, 25-29, 2004, Shepherdstown, WV

Fowler, L. G. , D. Ramsey & C. E. Smith. 2004. Performance of all Male Tilapia *Oreochromis mossambicus*, fed 28%, 32%, 35% and 40% protein extruded diets, phytase addition and organic and non-mammalian formulations. Rangen Research Report N0305. Confidential Report January, 2004

Sischler, G., P. Walker, E.P. Bergersen, T. James and C.E. Smith 2003. Evaluation of oxytetracycline, dimilin, malarone, and quinine for control of myxobolus cerebralis. Proceedings of the 9th Annual Whirling Disease Symposium. February 6&7, 2003, Seattle, Washington

Amend, Donald,F., James Lannan, Scott LaPatra, Robert G. Piper, William J. McNeil, Charlie Smith & Gary A. Wedemeyer. 2002. Another opinion on the role of hatcheries in Pacific salmon Management. J. World Aquaculture Society, 8-10, Dec, 2002

Smith, C.E., B. David and B.D. Roselund. 2002. The role of fish hatcheries in reestablishing the Apache Trout *Salmo apache* and the Greenback Cutthroat trout *Salmo clarki stomias*: success stories. Abstract. International congress of fish biology, Vancouver, B.C. Canada, July, 2002.

Smith, C.E. 2002. Results of Chloramine-T Target Animal Safety Studies on Rainbow trout *Onchorynchus mykiss*. Histopathology: Effects of Chloramine-T on Selected Fish Tissues. In: The Safety of Chloramine-T to Various Life Stages

of Rainbow Trout. Final Study Report to U.S. Food & Drug Administration, Center for Veterinary Medicine.

Smith, C.E. 1999 - 2002. Rangen, Inc., In House research feeding studies on Trout and Tilapia. Several studies have been completed, but information is confidential.

Smith, C.E. & E. MacConnell. 1999. Whirling Disease at a Glance. *Salmonid* 23:(1) 5-7.

Smith, C. E., D. Ramsey & C.A. Speer. 1998. Histopathology Associated with an Irido-Like Virus Infection of Tilapia, *Tilapia nilotica*. World Aquaculture Society, February 15 - 19, 1998, Las Vegas, NV. Abstract .

Smith, C.E, D. Ramsey & C.A. Speer. 1997. Histopathology associated with an Irido-like virus infection of Tilapia. *FHS Newsletter, Fish Health Section - American Fisheries Society*, 25(3):6-9

Smith, C.E. 1997. Whirling Disease Update. *Salmonid* vol XXI, pp. 8 & 9.

Piper, R.G. & C.E. Smith. 1997. State of Montana Fish Hatchery System Review, prepared for Montana Department of Fish, Wildlife & Parks by Piper Technology, Bozeman, MT. January, 1997

MacConnell, E. & C.E. Smith. 1995. Whirling Disease: The North American Experience. Proceedings 4th International Symposium of Fish Physiology, Toxicology & Water Quality. Montana State University, Bozeman, MT, September 19-21.

Cvitanich, J.D., Garate, O., Silva, P., Andrade, M., Figueroa, P. & C.E. Smith. 1995. Isolation of a New Rickettsia-like Organism from Atlantic Salmon in Chile. *FHS Newsletter, Fish Health Section, American Fisheries Society*, 23:1-3.

LaPatra, S.E., C.E. Smith, B. Drolet, K.A. Lauda, G.R. Jones, & J. C. Leong. 1995. Abstract. Characterization of IHNV isolates associated with neurotrophism. Third International Symposium on Viruses of Lower Vertebrates. March 14-17, 1995. Jouy-en-Josas, France.

LaPatra, S.E., C.E. Smith, B. Drolet, K.A. Lauda, G.R. Jones, and W.D. Shewmaker. 1994. Abstract. Characterization of IHNV isolates associated with neurotrophism. Western Fish Disease Workshop. June 22-24, 1994. Bozeman, Montana

Jones, G.R., C.E. Smith, K.A. Lauda, and S.E. LaPatra. 1994 Abstract. Diagnostic hematological changes in rainbow trout infected with IHNV. Abstract. Western Fish Disease Workshop. June 22-24, 1994. Bozeman, Montana

Woodward, D.F., W.G. Brumbaugh, A.J. DeLonay, E.E Little, and C.E. Smith. 1994. Effects on rainbow trout fry of a metals- contaminated diet of benthic invertebrates from the Clark Fork River, Montana. *Trans. Amer. Fish. Soc.* 123:51-62.

Dey, W.P., T.H. Peck, C.E. Smith & Q. Kremer. 1993. Epizootology of hepatic neoplasia in Atlantic tomcod (*Microgadus tomcod*) from the Hudson River estuary. *Can. J. Fish. Aquatic Sci.*, 50:1897-1907.

Dong, F.M., F.T. Barrows, J.D. Erickson, W.T. Fairgrive, I. Forster, N.F. Hard, R.W.Hardy, D.A.Higgs, B.A. Rasco, J.S. Rohovec, and C.E. Smith. March, 1993. The nutritive value of alternative protein sources in the diets of cultured salmonids. 1993. Proceedings of the twentieth U.S. Japan Symposium on Aquaculture Nutrition. U.S. Dept. of commerce, NOAA. M.R. Collier & J.P. McVey, editors.

Michak, P., C.E. Smith & K. Hopper. 1992. Erythrocytic inclusion body syndrome: a light and electron microscopic study of infected erythrocytes of chinook (*Oncorhynchus tshawytscha*) and coho (*O. kisutch*) salmon. *Dis. Aquatic Org.* 12: 229-233.

Smith, C.E. 1992. Neoplasia in Salmonids, pp. 428-432. *In: Fish Medicine*, M.D. Stoskopf, ed. W.B. Saunders Co, Philadelphia, London, Toronto, Montreal, Sydney & Tokyo.

Cvitanich, J.D., O. Garate & C.E. Smith. 1991. The Isolation of a rickettsia-like organism causing disease and mortality in Chilean salmonids and its confirmation by Koch's postulates. *J. Fish Diseases*, 14: 121-145.

Dwyer, W.P., G.A. Kindschi, and C.E. Smith. 1991. Evaluation of high and low pressure oxygen injection techniques. *IN: Fisheries Bioengineering Symposium*, pp. 428-436. American Fisheries Society, Bethesda, MD

Edsall, D. A. and C. E. Smith. 1991. Oxygen induced gas bubble disease in rainbow trout, *Oncorhynchus mykiss* (Walbaum). *Aquaculture and Fisheries Management* 22:135-140.

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- Cormier, S. M., R. N. Racine, C. E. Smith, W. P. Dey, and T.H. Peck. 1989. Hepatocellular carcinoma and fatty infiltration in the Atlantic tomcod, Microgadus tomcod (Walbaum). *Journal of Fish Diseases* 12:105-116.
- Dwyer, W. P., and C. E. Smith. 1989. Metacercariae of Diplostomum spathaceum in the eyes of fishes from Yellowstone Lake, Wyoming. *Journal of Wildlife Diseases* 25(1):126-129.
- Ketola, H. G., C. E. Smith, and G. A. Kindschi. 1989. Influence of diet and oxidative rancidity on fry of Atlantic and coho salmon. *Aquaculture* 79:417-423.
- Kindschi, G. A., C. E. Smith, and S. Doulos. 1989. Use of the Aquatector oxygenation system for improving the quality of fish-rearing water. *Progressive Fish-Culturist* 51(3):140-145.
- MacConnell, E., C.E. Smith, R. P. Hedrick and C.A. Spear. 1989. Cellular inflammatory response of rainbow trout to the protozoan parasite that causes proliferative kidney disease. *Journal of Aquatic animal Health* 1:105-118.
- Smith, C. E., D. A. Edsall, R. R. Smith, and G. Raisanen. 1989. Improved diet for rainbow trout reared in 68° F. water at the Paige Springs, AZ State Fish Hatchery. *Salmonid magazine* 13(2):22.
- Mitchell, A. J., and C. E. Smith. 1988. Amphileptis brancharium (Protozoa: Amphileptidae) in pond-reared fish in Arkansas. *Journal of Wildlife Diseases* 24(4):642-646.
- disease. *J. Aquatic Animal Health*, 1:108-118.
- Smith, C.E. 1988. Histopathology of gas bubble disease in rainbow trout. *Progressive Fish Culturist*, 50:98-103.
- Smith, C. E. 1987. Bacterial infections and lesions associated with air spawning of rainbow trout. *Proceedings of the 38th Annual Northwest Fish Culture Conference, Tacoma/Fife, WA, 1987.*
- Hedrick, R. P., M. L. Kent, and C. E. Smith. 1986. Proliferative kidney disease (PKD) in salmonid fishes. USFWS, Fish Disease Leaflet No. 74, Washington, D.C.
- Hedrick, R. P., M. L. Kent, and C. E. Smith. 1986. Proliferative kidney disease—poorly understood protozoan to blame. *Salmonid Magazine* 10(2).
- Morrison, J. K., and C. E. Smith. 1986. Altering the spawning cycle of rainbow trout by manipulating water temperature. *Progressive Fish-Culturist* 48(1):52-54.
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Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Committee on Cancer Injury to Fish & Wildlife, USFWS.

Grant, B. F., R. A. Williams, L. Babington, T. R. Zeigler, R. Vogt, N. E. Wood, and C. E. Smith. 1984. Biologic value of plant protein in fish feed: 1. Canola meal in rainbow trout diets. Presented at the 13th Fish Feed and Nutrition Workshop. Madison, WI. October 9-11, 1984.

Piper, R. G., and C. E. Smith. 1984. Use of clinoptilolite for ammonia removal in fish culture systems. In: *Zeo-Agriculture*, edited by W. G. Pond and F. A. Mumpton, Westview Press, Boulder, CO, p. 223-228.

Smith, C.E., J.K. Morrison, H. Ramsey & H.W. Ferguson. 1984. Proliferative kidney disease; :first reported outbreak in North America. *J. Fish Diseases*, 7:207-216.

Smith, C. E. 1984. Hyperplastic lesions of the primitive meninx of fathead minnows *Pimephales promelas* induced by ammonia: Species potential for carcinogen testing. *National Cancer Institute Monograph* 65:119-125.

Thurston, R. V., R. Russo, R. Luedke, C. E. Smith, E. Meyn, C. Chakoumakos, K. Wang, and C. J. D. Brown. 1984. Chronic toxicity of ammonia to rainbow trout. *Transactions of the American Fisheries Society* 113(1):56-73.

Warr, G. W., B. R. Griffin, D. P. Anderson, P. E. McAllister, B. Lidgerding, and C. E. Smith. 1984. A lymphosarcoma of thymic origin in the rainbow trout, *Salmo gairdneri* Richardson. *Journal of Fish Diseases* 7(1):73-82.

Select Publications prior to 1984

Holloway, H.L. Jr & C. E. Smith. 1982. A Myopathy in North Dakota Walleye. *J. Fish Diseases*, 5: 527 – 530.

Wolf, K. & C.E. Smith. 1981. *Herpesvirus salmonis*: pathological changes in parenterally-infected rainbow trout fry. *J. Fish Diseases*, 4. 445 – 457.

Smith, C.E. & T. Inslee. 1980. Interlamellar *Henneguya* infestation in adult channel catfish. *J. Fish Diseases*, 3, 257-260.

Harshbarger, J.C., E.R. Jacobson, C.E. Smith & J. A. Couch. 1979. Hematopoietic Neoplasms in Invertebrates and Cold-Blooded Vertebrates. In *Advances in Comparative Leukemia Research*, pp. 223 – 225. D.S. Yohn, B.A. Lapin & J.R. Blakeslee, Eds. Elsevier, North Holland, Inc.

Smith, C.E. T.H. Peck, R.J. Klauda & J. B. McClaren. 1979. Hepatomas in Atlantic Tomcod, *Microgadus tomcod* collected in the Hudson River estuary in New York. *J. Fish Diseases* 2: 313 - 319

Thurston, R.V., R.C. Russo & C.E. Smith. 1978. Acute Toxicity of Ammonia and Nitrite to Cutthroat Trout Fry. *Trans. Am. Fish. Soc.* 107: 361-368.

Smith, C.E. & R.G. Piper. 1975. Lesions Associated with Chronic Exposure to Ammonia. 1975. The Pathology of Fishes, pp. 497 – 514, W.E. Ribelin & G.Migaki, eds. The University of Wisconsin Press.

Smith, C. E. & R.C. Russo. Nitrite-Induced methemoglobinemia in Rainbow Trout. 1975. The Progressive Fish Culturists, 37: 150-152.

Smith, C. E. & W.G. Williams. 1974. Experimental Nitrite Toxicity in Rainbow Trout and Chinook Salmon. Trans. Am. Fish. Soc. 103: 389-390.

Russo, R.C., C.E. Smith & R.V. Thurston. 1974. Acute Toxicity of Nitrite to Rainbow Trout. J. Fish. Res. Board Can. 31: 1653-1655.

Smith, C.E., J.E. Holway, & G.L. Hammer. 1973. Sulphamerazine Toxicity in Cutthroat trout broodfish. J. Fish. Biol. 5; 97-101

Smith, C.E. Hematological changes in coho salmon, *Oncorhynchus kisutch*, fed a folic acid deficient diet. J fish Res Bd Canada add dates

Smith, C.E. & K/E. Halver. Folic acid anemia in coho salmon, *Oncorhynchus kisutch*. J Fish Res Bd Canada add dates.

Additional experience:

Instructor for the US Fish & Wildlife's National Conservation Training Center (NCTC), Shepherdstown, WV, having taught courses for several years. I am an instructor for the Coldwater Fish Culture Course (CWFCC) having taught the Fish Hatchery Management sections of the course in 2005, through 2008. In the past I taught the Hatchery Carrying Capacity, Broodstock Management, and the Fish Disease portions of the Cold Water Fish Culture course. I have also taught Water Quality section of the CWFCC and occasionally Water Treatment Systems. I am also an instructor for the NCTC Fish Histopathology course when it is given (approximately every other year). I also helped teach certain sections of the Fish Disease Course offered by the Bozeman Fish Health Laboratory in the spring of 2005 and 2007.

In the past I was under contract with the USFWS Aquatic Animal Drug Approval Program doing histopathological examinations of tissues primarily from fish exposed to drugs/chemicals during Target Animal Safety Studies; also, with the US Department of Agriculture's Agriculture Research Service doing histopathological examinations of tissues of fish fed various experimental feeds.

I have worked under contract with engineering firms on hatchery design projects.

I continue to provide diagnostic histopathology services to the states fisheries agencies in Colorado, Idaho and Wyoming and the USFWS's, Bozeman Fish Health Center on an as needed basis.